500 mA Negative Voltage Regulators

MC79M00 Series

The MC79M00 series of fixed output negative voltage regulators are intended as complements to the popular MC78M00 series devices.

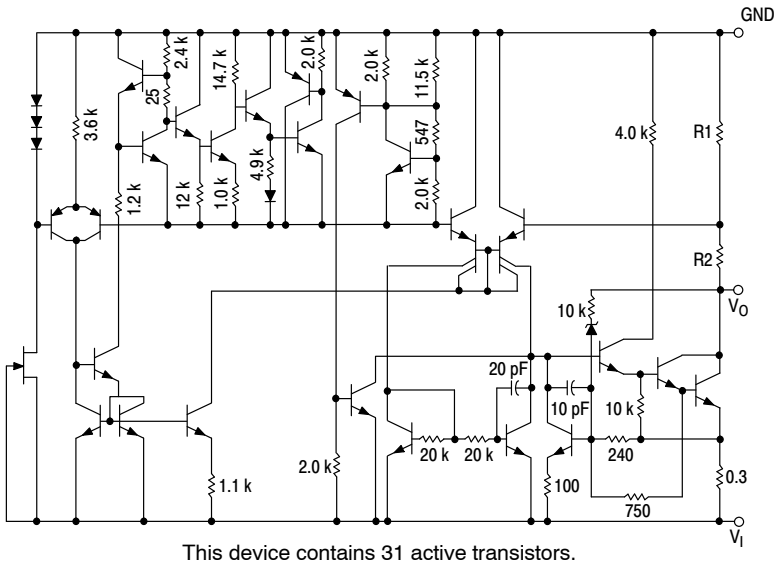
Available in fixed output voltage options of −5.0 V, −8.0 V, −12 V and −15 V, these regulators employ current limiting, thermal shutdown, and safe-area compensation, making them remarkably rugged under most operating conditions. With adequate heatsinking they can deliver output currents in excess of 0.5 A.

Features

- No External Components Required
- Internal Thermal Overload Protection
- Internal Short Circuit Current Limiting
- Output Transistor Safe-Area Compensation
- Also Available in Surface Mount DPAK (DT) Package
- Pb-Free Packages are Available

DEVICE TYPE/NOMINAL OUTPUT VOLTAGE

Device	Nominal Output Voltage
MC79M05	−5.0 V
MC79M08	−8.0 V
MC79M12	−12 V
MC79M15	−15 V

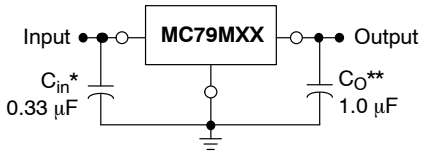


This device contains 31 active transistors.

Figure 1. Representative Schematic Diagram

THREE-TERMINAL NEGATIVE FIXED VOLTAGE REGULATORS

STANDARD APPLICATION



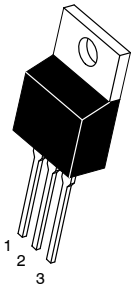
A common ground is required between the input and the output voltages. The input voltage must remain typically 1.1 V more negative even during the high point of the input ripple voltage.

XX These two digits of the type number indicate nominal voltage.

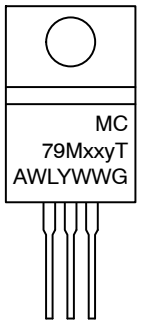
* C_{in} is required if regulator is located an appreciable distance from power supply filter.

** C_O improve stability and transient response.

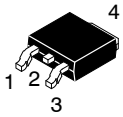
MARKING DIAGRAMS



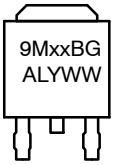
Pin 1. Ground
2. Input
3. Output

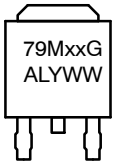


TO-220-3
T SUFFIX
CASE 221AB



DPAK-3
DT SUFFIX
CASE 369C





xx	= 05, 08, 12, or 15
y	= B or C
A	= Assembly Location
WL, L	= Wafer Lot
Y	= Year
WW	= Work Week
G	= Pb-Free Device

ORDERING INFORMATION

See detailed ordering and shipping information on page 6 of this data sheet.

NOTE: Some of the devices on this data sheet have been **DISCONTINUED**. Please refer to the table on page 6.

© Semiconductor Components Industries, LLC, 2013

Downloaded from Arrow.com.

MAXIMUM RATINGS (T_A = 25 °C, unless otherwise noted.)

Rating	Symbol	Value	Unit
Input Voltage	V_I	−35	Vdc
Power Dissipation			
Case 221A (TO-220-3)			
T_A = 25 °C	P_D	Internally Limited	W
Thermal Resistance, Junction-to-Ambient	θ_{JA}	65	°C/W
Thermal Resistance, Junction-to-Case	θ_{JC}	5.0	°C/W
Case 369C (DPAK-3)			
T_A = 25 °C	P_D	Internally Limited	W
Thermal Resistance, Junction-to-Ambient	θ_{JA}	92	°C/W
Thermal Resistance, Junction-to-Case	θ_{JC}	6.0	°C/W
Storage Junction Temperature	T_{stg}	−65 to +150	°C
Operating Junction Temperature Range	T_J	−40 to +150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

* This device series contains ESD protection and exceeds the following tests:
Human Body Model 2000 V per MIL_STD_883, Method 3015
Machine Model Method 200 V

MC79M05B, C
ELECTRICAL CHARACTERISTICS (V_I = −10 V, I_O = 350 mA, T_{low} to T_{high} (Note 2), unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
Output Voltage (T_J = 25 °C)	V_O	−4.8	−5.0	−5.2	Vdc
Line Regulation, T_J = 25 °C (Note 1) −7.0 Vdc ≥ V_I ≥ −25 Vdc −8.0 Vdc ≥ V_I ≥ −18 Vdc	Reg_{line}	 – –	 7.0 2.0	 50 30	mV
Load Regulation, T_J = 25 °C (Note 1) 5.0 mA ≤ I_O ≤ 500 mA	Reg_{load}	–	30	100	mV
Output Voltage −7.0 Vdc ≥ V_I ≥ −25 Vdc, 5.0 mA ≤ I_O ≤ 350 mA	V_O	−4.75	–	−5.25	Vdc
Input Bias Current (T_J = 25 °C)	I_{IB}	–	4.3	8.0	mA
Input Bias Current Change −8.0 Vdc ≥ V_I ≥ −25 Vdc, I_O = 350 mA 5.0 mA ≤ I_O ≤ 350 mA, V_I = −10 V	ΔI_{IB}	 – –	 – –	 0.4 0.4	mA
Output Noise Voltage, T_A = 25 °C, 10 Hz ≤ f ≤ 100 kHz	V_n	–	40	–	μV
Ripple Rejection (f = 120 Hz)	RR	54	66	–	dB
Dropout Voltage I_O = 500 mA, T_J = 25 °C	V_I–V_O	–	1.1	–	Vdc
Average Temperature Coefficient of Output Voltage I_O = 5.0 mA, 0°C ≤ T_J ≤ 125 °C	$\Delta V_O/\Delta T$	–	0.2	–	mV/°C

1. Load and line regulation are specified at constant temperature. Change in V_O due to heating effects must be taken into account separately. Pulse testing with low duty cycle is used.
2. B = T_{low} to T_{high}, −40°C < T_J < 125°C C = T_{low} to T_{high}, 0 °C < T_J < 125 °C.

Share Feedback
Your Opinion Matters

Downloaded from Arrow.com.

MC79M08B, C
ELECTRICAL CHARACTERISTICS (V_I = −10 V, I_O = 350 mA, T_{low} to T_{high} (Note 4), unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
Output Voltage (T_J = 25 °C)	V_O	−7.7	−8.0	−8.3	Vdc
Line Regulation, T_J = 25 °C (Note 3) −10.5 Vdc ≥ V_I ≥ −25 Vdc −11 Vdc ≥ V_I ≥ −21 Vdc	Reg_{line}	 – –	 5.0 3.0	 80 50	mV
Load Regulation, T_J = 25 °C (Note 3) 5.0 mA ≤ I_O ≤ 500 mA	Reg_{load}	 –	 30	 100	mV
Output Voltage −10.5 Vdc ≥ V_I ≥ −25 Vdc, 5.0 mA ≤ I_O ≤ 350 mA	V_O	 −7.6	 −8.0	 −8.4	Vdc
Input Bias Current (T_J = 25 °C)	I_{IB}	–	–	8.0	mA
Input Bias Current Change −10.5 Vdc ≥ V_I ≥ −25 Vdc, I_O = 350 mA 5.0 mA ≤ I_O ≤ 350 mA, V_I = −10 V	ΔI_{IB}	 – –	 – –	 0.4 0.4	mA
Output Noise Voltage, T_A = 25 °C, 10 Hz ≤ f ≤ 100 kHz	V_n	–	60	–	μV
Ripple Rejection (f = 120 Hz)	RR	54	63	–	dB
Dropout Voltage I_O = 500 mA, T_J = 25 °C	V_I–V_O	 –	 1.1	 –	Vdc
Average Temperature Coefficient of Output Voltage I_O = 5.0 mA, 0°C ≤ T_J ≤ 125 °C	$\Delta V_O/\Delta T$	 –	 0.4	 –	mV/°C

3. Load and line regulation are specified at constant temperature. Change in V_O due to heating effects must be taken into account separately. Pulse testing with low duty cycle is used.
4. B = T_{low} to T_{high}, −40 °C < T_J < 125 °C
   C = T_{low} to T_{high}, 0 °C < T_J < 125 °C

MC79M12B, C
ELECTRICAL CHARACTERISTICS (V_I = −19 V, I_O = 350 mA, T_{low} to T_{high} (Note 6), unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
Output Voltage (T_J = 25 °C)	V_O	−11.5	−12	−12.5	Vdc
Line Regulation, T_J = 25 °C (Note 5) −14.5 Vdc ≥ V_I ≥ −30 Vdc −15 Vdc ≥ V_I ≥ −25 Vdc	Reg_{line}	 – –	 5.0 3.0	 80 50	mV
Load Regulation, T_J = 25 °C (Note 5) 5.0 mA ≤ I_O ≤ 500 mA	Reg_{load}	 –	 30	 240	mV
Output Voltage −14.5 Vdc ≥ V_I ≥ −30 Vdc, 5.0 mA ≤ I_O ≤ 350 mA	V_O	 −11.4	 –	 −12.6	Vdc
Input Bias Current (T_J = 25 °C)	I_{IB}	–	4.4	8.0	mA
Input Bias Current Change −14.5 Vdc ≥ V_I ≥ −30 Vdc, I_O = 350 mA 5.0 mA ≤ I_O ≤ 350 mA, V_I = −19 V	ΔI_{IB}	 – –	 – –	 0.4 0.4	mA
Output Noise Voltage, T_A = 25 °C, 10 Hz ≤ f ≤ 100 kHz	V_n	–	75	–	μV
Ripple Rejection (f = 120 Hz)	RR	54	60	–	dB
Dropout Voltage I_O = 500 mA, T_J = 25 °C	V_I–V_O	 –	 1.1	 –	Vdc
Average Temperature Coefficient of Output Voltage I_O = 5.0 mA, 0°C ≤ T_J ≤ 125 °C	$\Delta V_O/\Delta T$	 –	 −0.8	 –	mV/°C

5. Load and line regulation are specified at constant temperature. Change in V_O due to heating effects must be taken into account separately. Pulse testing with low duty cycle is used.
6. B = T_{low} to T_{high}, −40 °C < T_J < 125 °C
   C = T_{low} to T_{high}, 0 °C < T_J < 125 °C

Share Feedback
Your Opinion Matters

Downloaded from Arrow.com.

MC79M15B, C
ELECTRICAL CHARACTERISTICS (V_I = −23 V, I_O = 350 mA, T_{low} to T_{high} (Note 8), unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
Output Voltage (T_J = 25 °C)	V_O	−14.4	−15	−15.6	Vdc
Line Regulation, T_J = 25 °C (Note 7) −17.5 Vdc ≥ V_I ≥ −30 Vdc −18 Vdc ≥ V_I ≥ −28 Vdc	Reg_{line}	 – –	 5.0 3.0	 80 50	mV
Load Regulation, T_J = 25 °C (Note 7) 5.0 mA ≤ I_O ≤ 500 mA	Reg_{load}	 –	 30	 240	mV
Output Voltage −17.5 Vdc ≥ V_I ≥ −30 Vdc, 5.0 mA ≤ I_O ≤ 350 mA	V_O	 −14.25	 –	 −15.75	Vdc
Input Bias Current (T_J = 25 °C)	I_{IB}	–	4.4	8.0	mA
Input Bias Current Change −17.5 Vdc ≥ V_I ≥ −30 Vdc, I_O = 350 mA 5.0 mA ≤ I_O ≤ 350 mA, V_I = −23 V	ΔI_{IB}	 – –	 – –	 0.4 0.4	mA
Output Noise Voltage, T_A = 25 °C, 10 Hz ≤ f ≤ 100 kHz	V_n	–	90	–	μV
Ripple Rejection (f = 120 Hz)	RR	54	60	–	dB
Dropout Voltage I_O = 500 mA, T_J = 25 °C	V_I–V_O	 –	 1.1	 –	Vdc
Average Temperature Coefficient of Output Voltage I_O = 5.0 mA, 0 °C ≤ T_J ≤ 125 °C	$\Delta V_O/\Delta T$	 –	 −1.0	 –	mV/°C

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

7. Load and line regulation are specified at constant temperature. Change in V_O due to heating effects must be taken into account separately. Pulse testing with low duty cycle is used.
8. B = T_{low} to T_{high}, −40 °C < T_J < 125 °C
   C = T_{low} to T_{high}, 0 °C < T_J < 125 °C

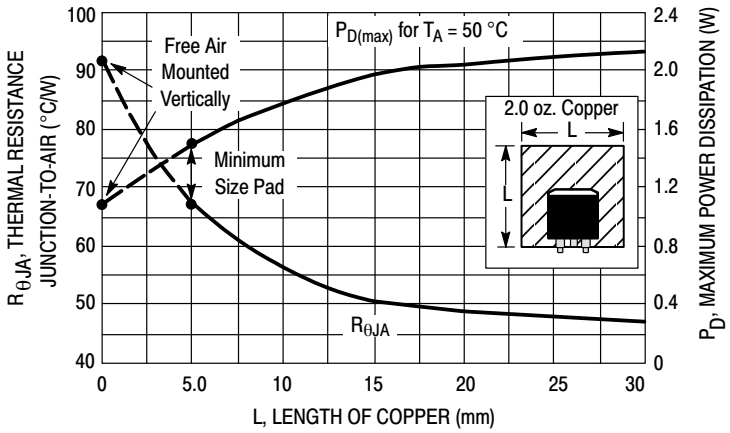


Figure 1. DPAK-3 Thermal Resistance and Maximum Power Dissipation versus P.C.B. Copper Length

Share Feedback
Your Opinion Matters

Downloaded from Arrow.com.

Protection Diodes

When external capacitors are used with MC79M00 series regulator it is sometimes necessary to add protection diodes to prevent the capacitors from discharging through low current points into the regulator or from output polarity reversals. Generally, no protection diode is required for values of output capacitance less then 10 μF. Figure 2 shows the MC79M15 with the recommended protection diodes.

- Opposite Polarity Protection

Diode D_1 protects the regulator from output polarity reversals during startup, power off and short-circuit operation.

- Reverse-bias Protection

Diode D_2 prevents output capacitor from discharging thru the MC79M15 during an input short circuit or fast switch off of power supply.

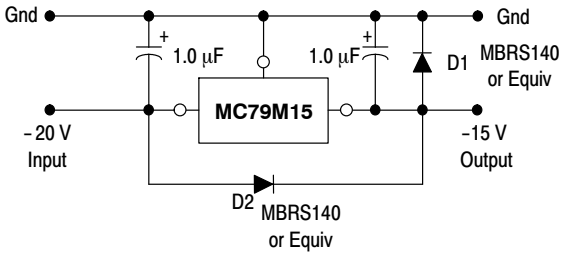


Figure 2. Protection Diodes

Share Feedback
Your Opinion Matters

Downloaded from Arrow.com.

ORDERING INFORMATION

Device	Output Voltage Tolerance	Operating Temperature Range	Package	Shipping†
MC79M05BDTG	4.0%	T_J = −40 °C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M05BDTRKG			DPAK (Pb-Free)	2500 / Tape & Reel
MC79M05CDTRKG		T_J = 0 °C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M08BDTRKG		T_J = −40 °C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M08CDTRKG		T_J = 0 °C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M12BDTRKG		T_J = −40 °C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M12BTG			TO-220 (Pb-Free)	50 Units / Rail
MC79M12CDTRKG		T_J = 0° C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M15BDTRKG	4.0%	T_J = −40 °C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M15BTG			TO-220 (Pb-Free)	50 Units / Rail
MC79M15CDTRKG		T_J = 0 °C to +125 °C	DPAK (Pb-Free)	2500 / Tape & Reel
MC79M15CTG			TO-220 (Pb-Free)	50 Units / Rail

DISCONTINUED (Note 9)

MC79M05BDT	4.0%	T_J = −40 °C to +125 °C	DPAK	75 Units / Rail
MC79M05BDTRK	4.0%	T_J = −40 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M05BT	4.0%	T_J = −40 °C to +125 °C	TO-220	50 Units / Rail
MC79M05CDT	4.0%	T_J = 0 °C to +125 °C	DPAK	75 Units / Rail
MC79M05CDTG	4.0%	T_J = 0 °C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M05CDTRK	4.0%	T_J = 0 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M05CT	4.0%	T_J = 0 °C to +125 °C	TO-220	50 Units / Rail
MC79M05CTG	4.0%	T_J = 0 °C to +125 °C	TO-220 (Pb-Free)	50 Units / Rail
MC79M08BDT	4.0%	T_J = −40 °C to +125 °C	DPAK	75 Units / Rail
MC79M08BDTRK	4.0%	T_J = −40 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M08BT	4.0%	T_J = −40 °C to +125 °C	TO-220	50 Units / Rail
MC79M08BTG	4.0%	T_J = −40 °C to +125 °C	TO-220 (Pb-Free)	50 Units / Rail
MC79M08CDT	4.0%	T_J = 0 °C to +125 °C	DPAK	75 Units / Rail
MC79M08CDTG	4.0%	T_J = 0 °C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M08CDTRK	4.0%	T_J = 0 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M08CT	4.0%	T_J = 0 °C to +125 °C	TO-220	50 Units / Rail
MC79M08CTG	4.0%	T_J = 0 °C to +125 °C	TO-220 (Pb-Free)	50 Units / Rail

Share Feedback
Your Opinion Matters

Downloaded from Arrow.com.

ORDERING INFORMATION

Device	Output Voltage Tolerance	Operating Temperature Range	Package	Shipping†
DISCONTINUED (Note 9)				
MC79M12BDT	4.0%	T_J = −40 °C to +125 °C	DPAK	75 Units / Rail
MC79M12BDTG	4.0%	T_J = −40 °C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M12BDTRK	4.0%	T_J = −40 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M12BT	4.0%	T_J = −40 °C to +125 °C	TO-220	50 Units / Rail
MC79M12CDT	4.0%	T_J = 0° C to +125 °C	DPAK	75 Units / Rail
MC79M12CDTG	4.0%	T_J = 0° C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M12CDTRK	4.0%	T_J = 0° C to +125 °C	DPAK	2500 / Tape & Reel
MC79M12CT	4.0%	T_J = 0° C to +125 °C	TO-220	50 Units / Rail
MC79M12CTG	4.0%	T_J = 0° C to +125 °C	TO-220 (Pb-Free)	50 Units / Rail
MC79M15BDT	4.0%	T_J = −40 °C to +125 °C	DPAK	75 Units / Rail
MC79M15BDTG	4.0%	T_J = −40 °C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M15BDTRK	4.0%	T_J = −40 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M15BT	4.0%	T_J = −40 °C to +125 °C	TO-220	50 Units / Rail
MC79M15CDT	4.0%	T_J = 0 °C to +125 °C	DPAK	75 Units / Rail
MC79M15CDTG	4.0%	T_J = 0 °C to +125 °C	DPAK (Pb-Free)	75 Units / Rail
MC79M15CDTRK	4.0%	T_J = 0 °C to +125 °C	DPAK	2500 / Tape & Reel
MC79M15CT	4.0%	T_J = 0 °C to +125 °C	TO-220	50 Units / Rail
MC79M05BTG	4.0%	T_J = −40 °C to +125 °C	TO-220 (Pb-Free)	50 Units / Rail

† For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

9. **DISCONTINUED:** These devices are not available. Please contact your **onsemi** representative for information. The most current information on these devices may be available on www.onsemi.com.

Share Feedback
Your Opinion Matters

Downloaded from Arrow.com.

REVISION HISTORY

Revision	Description of Changes	Date
16	Rebranded the Data Sheet to **onsemi** format. MC79M05BDT, MC79M05BDTRK, MC79M05BT, MC79M05CDT, MC79M05CDTG, MC79M05CDTRK, MC79M05CT, MC79M05CTG, MC79M08BDT, MC79M08BDTRK, MC79M08BT, MC79M08BTG, MC79M08CDT, MC79M08CDTG, MC79M08CDTRK, MC79M08CT, MC79M08CTG, MC79M12BDT, MC79M12BDTG, MC79M12BDTRK, MC79M12BT, MC79M12CDT, MC79M12CDTG, MC79M12CDTRK, MC79M12CT, MC79M12CTG, MC79M15BDT, MC79M15BDTG, MC79M15BDTRK, MC79M15BT, MC79M15CDT, MC79M15CDTG, MC79M15CDTRK, MC79M15CT, MC79M05BTG OPNs Marked as Discontinued.	2/27/2026

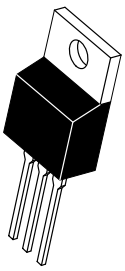
This document has undergone updates prior to the inclusion of this revision history table. The changes tracked here only reflect updates made on the noted approval dates.

Share Feedback
Your Opinion Matters

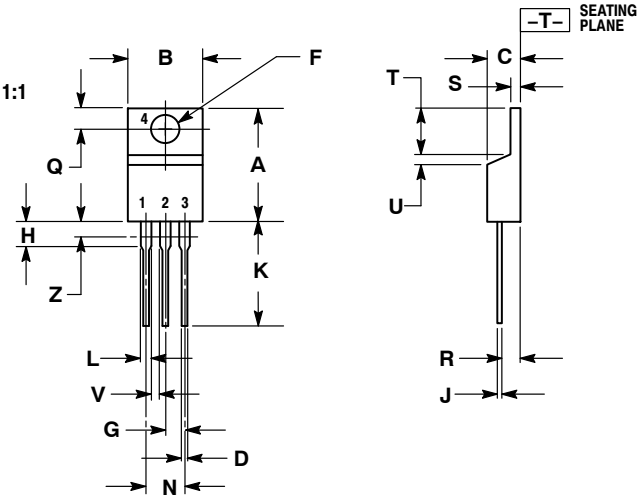
Downloaded from Arrow.com.

TO−220, SINGLE GAUGE
CASE 221AB
ISSUE A

DATE 16 NOV 2010



SCALE 1:1



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCHES.
3. DIMENSION Z DEFINES A ZONE WHERE ALL BODY AND LEAD IRREGULARITIES ARE ALLOWED.
4. PRODUCT SHIPPED PRIOR TO 2008 HAD DIMENSIONS S = 0.045 – 0.055 INCHES (1.143 – 1.397 MM)

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	0.570	0.620	14.48	15.75
B	0.380	0.405	9.66	10.28
C	0.160	0.190	4.07	4.82
D	0.025	0.035	0.64	0.88
F	0.142	0.147	3.61	3.73
G	0.095	0.105	2.42	2.66
H	0.110	0.155	2.80	3.93
J	0.018	0.025	0.46	0.64
K	0.500	0.562	12.70	14.27
L	0.045	0.060	1.15	1.52
N	0.190	0.210	4.83	5.33
Q	0.100	0.120	2.54	3.04
R	0.080	0.110	2.04	2.79
S	0.020	0.024	0.508	0.61
T	0.235	0.255	5.97	6.47
U	0.000	0.050	0.00	1.27
V	0.045	---	1.15	---
Z	---	0.080	---	2.04

STYLE 1:
PIN 1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR

STYLE 2:
PIN 1. BASE
2. EMITTER
3. COLLECTOR
4. EMITTER

STYLE 3:
PIN 1. CATHODE
2. ANODE
3. GATE
4. ANODE

STYLE 4:
PIN 1. MAIN TERMINAL 1
2. MAIN TERMINAL 2
3. GATE
4. MAIN TERMINAL 2

STYLE 5:
PIN 1. GATE
2. DRAIN
3. SOURCE
4. DRAIN

STYLE 6:
PIN 1. ANODE
2. CATHODE
3. ANODE
4. CATHODE

STYLE 7:
PIN 1. CATHODE
2. ANODE
3. CATHODE
4. ANODE

STYLE 8:
PIN 1. CATHODE
2. ANODE
3. EXTERNAL TRIP/DELAY
4. ANODE

STYLE 9:
PIN 1. GATE
2. COLLECTOR
3. EMITTER
4. COLLECTOR

STYLE 10:
PIN 1. GATE
2. SOURCE
3. DRAIN
4. SOURCE

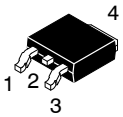
STYLE 11:
PIN 1. DRAIN
2. SOURCE
3. GATE
4. SOURCE

DOCUMENT NUMBER:	**98AON23085D**	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
DESCRIPTION:	**TO−220, SINGLE GAUGE**	**PAGE 1 OF 1**

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba **onsemi** or its subsidiaries in the United States and/or other countries. **onsemi** reserves the right to make changes without further notice to any products herein. **onsemi** makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. **onsemi** does not convey any license under its patent rights nor the rights of others.

© Semiconductor Components Industries, LLC, 2006

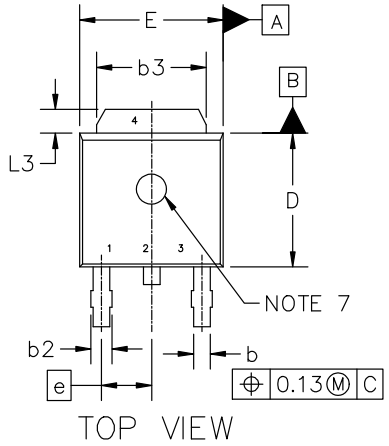
Downloaded from Arrow.com.



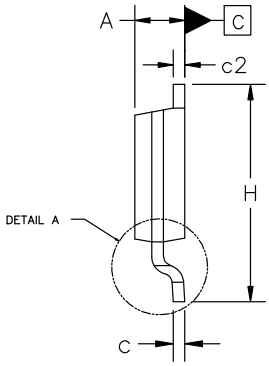
SCALE 1:1

DPAK−3 6.10x6.54x2.28, 2.29P
CASE 369C
ISSUE L

DATE 24 AUG 2026

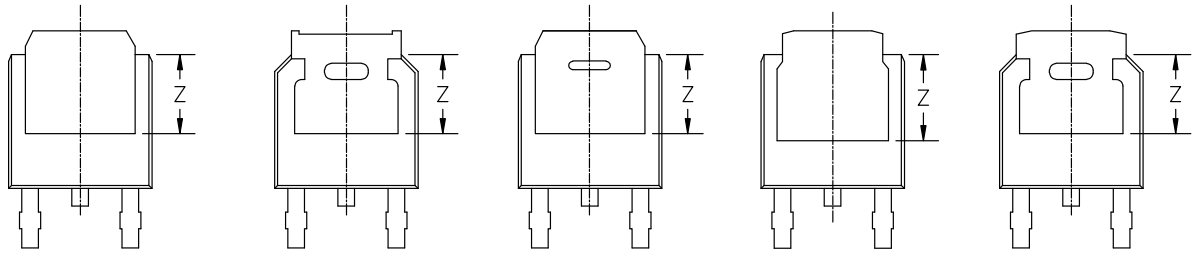


TOP VIEW



SIDE VIEW

MILLIMETERS			
DIM	MIN	NOM	MAX
A	2.18	2.28	2.38
A1	0.00	−−−	0.13
b	0.63	0.76	0.89
b2	0.72	0.93	1.14
b3	4.57	5.02	5.46
c	0.46	0.54	0.61
c2	0.46	0.54	0.61
D	5.97	6.10	6.22
E	6.35	6.54	6.73
e	2.29 BSC		
H	9.40	9.91	10.41
L	1.40	1.59	1.78
L1	2.90 REF		
L2	0.51 BSC		
L3	0.89	−−−	1.27
L4	−−−	−−−	1.01
Z	3.93	−−−	−−−

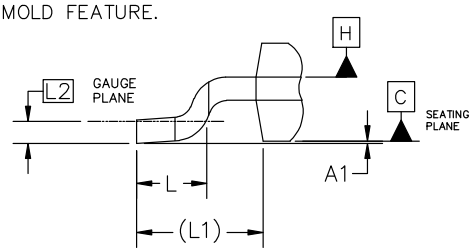


BOTTOM VIEW

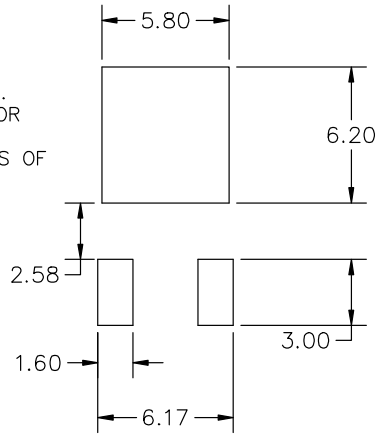
ALTERNATE CONSTRUCTIONS

NOTES:

1. DIMENSIONING AND TOLERANCING ASME Y14.5M, 2018.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. THERMAL PAD CONTOUR OPTIONAL WITHIN DIMENSIONS b3, L3, AND Z.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR BURRS.
5. DIMENSIONS D AND E ARE DETERMINED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY.
6. DATUMS A AND B ARE DETERMINED AT DATUM PLANE H.
7. OPTIONAL MOLD FEATURE.



DETAIL A
ROTATED 90° CW



RECOMMENDED MOUNTING FOOTPRINT*
*For additional information on our Pb−Free strategy and soldering details, please download the onsemi Soldering and Mounting Techniques reference manual, SOLDERRM/D.

DOCUMENT NUMBER:	**98AON10527D**	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
DESCRIPTION:	**DPAK−3 6.10x6.54x2.28, 2.29P**	**PAGE 1 OF 2**

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba **onsemi** or its subsidiaries in the United States and/or other countries. **onsemi** reserves the right to make changes without further notice to any products herein. **onsemi** makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. **onsemi** does not convey any license under its patent rights nor the rights of others.

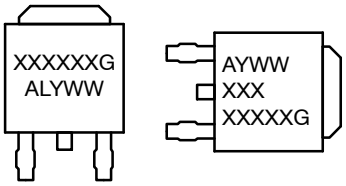
© Semiconductor Components Industries, LLC, 2011

Downloaded from Arrow.com.

DPAK−3 6.10x6.54x2.28, 2.29P
CASE 369C
ISSUE L

DATE 24 AUG 2026

GENERIC MARKING DIAGRAM*



IC **Discrete**

XXXXXX	= Device Code
A	= Assembly Location
L	= Wafer Lot
Y	= Year
WW	= Work Week
G	= Pb−Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “▪”, may or may not be present. Some products may not follow the Generic Marking.

STYLE 1:
PIN 1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR

STYLE 2:
PIN 1. GATE
2. DRAIN
3. SOURCE
4. DRAIN

STYLE 3:
PIN 1. ANODE
2. CATHODE
3. ANODE
4. CATHODE

STYLE 4:
PIN 1. CATHODE
2. ANODE
3. GATE
4. ANODE

STYLE 5:
PIN 1. GATE
2. ANODE
3. CATHODE
4. ANODE

STYLE 6:
PIN 1. MT1
2. MT2
3. GATE
4. MT2

STYLE 7:
PIN 1. GATE
2. COLLECTOR
3. EMITTER
4. COLLECTOR

STYLE 8:
PIN 1. N/C
2. CATHODE
3. ANODE
4. CATHODE

STYLE 9:
PIN 1. ANODE
2. CATHODE
3. RESISTOR ADJUST
4. CATHODE

STYLE 10:
PIN 1. CATHODE
2. ANODE
3. CATHODE
4. ANODE

onsemi and ONSEMI are trademarks of Semiconductor Components Industries, LLC dba **onsemi** or its subsidiaries in the United States and/or other countries. **onsemi** reserves the right to make changes without further notice to any products herein. **onsemi** makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. **onsemi** does not convey any license under its patent rights nor the rights of others.

© Semiconductor Components Industries, LLC, 2011

Downloaded from Arrow.com.

onsemi, ONSEMI , and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent−Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as−is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:
Technical Library: www.onsemi.com/design/resources/technical−documentation
onsemi Website: www.onsemi.com

ONLINE SUPPORT: www.onsemi.com/support
For additional information, please contact your local Sales Representative at www.onsemi.com/support/sales

◊

Downloaded from Arrow.com.