

2A, 600V High Efficient Rectifier

FEATURES

- AEC-Q101 qualified available
- Glass passivated chip junction
- High efficient recovery time
- 175°C operating junction temperature
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- DC to DC converter
- Switching mode converters and inverters
- Freewheeling application

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
I_F	2	A
V_{RRM}	600	V
I_{FSM}	35	A
$T_{J\ MAX}$	175	°C
Package	DO-204AC (DO-15)	
Configuration	Single die	



MECHANICAL DATA

- Case: DO-204AC (DO-15)
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Pure tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 2 whisker test
- Polarity: Indicated by cathode band
- Weight: 0.400g (approximately)



DO-204AC (DO-15)



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	MUR260	UNIT
Marking code on the device		MUR260	
Repetitive peak reverse voltage	V_{RRM}	600	V
Reverse voltage, total rms value	$V_{R(\text{RMS})}$	420	V
Forward current	I_F	2	A
Surge peak forward current, 8.3ms single half sine wave superimposed on rated load	I_{FSM}	35	A
Junction temperature	T_J	-55 to +175	°C
Storage temperature	T_{STG}	-55 to +175	°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-lead thermal resistance	$R_{\Theta JL}$	17	°C/W
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	62	°C/W
Junction-to-case thermal resistance	$R_{\Theta JC}$	18	°C/W

Thermal Performance Note: Units mounted on PCB (10mm x 10mm Cu pad test board)

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage ⁽¹⁾	$I_F = 1\text{A}, T_J = 25^\circ\text{C}$	V_F	0.99	1.19	V
	$I_F = 2\text{A}, T_J = 25^\circ\text{C}$		1.09	1.35	V
	$I_F = 1\text{A}, T_J = 150^\circ\text{C}$		0.79	0.95	V
	$I_F = 2\text{A}, T_J = 150^\circ\text{C}$		0.87	1.15	V
Reverse current @ rated V_R ⁽²⁾	$T_J = 25^\circ\text{C}$	I_R	-	5	μA
	$T_J = 125^\circ\text{C}$		-	100	μA
Junction capacitance	1MHz, $V_R = 4.0\text{V}$	C_J	26	-	pF
Reverse recovery time	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	t_{rr}	-	50	ns

Notes:

1. Pulse test with PW = 0.3ms
2. Pulse test with PW = 30ms

ORDERING INFORMATION

ORDERING CODE ⁽¹⁾	PACKAGE	PACKING
MUR260	DO-204AC (DO-15)	3,500 / Tape & Reel
MUR260 A0G	DO-204AC (DO-15)	1,500 / Ammo box
MUR260H	DO-204AC (DO-15)	3,500 / Tape & Reel
MUR260HA0G	DO-204AC (DO-15)	1,500 / Ammo box

Notes:

1. "H" means AEC-Q101 qualified

CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

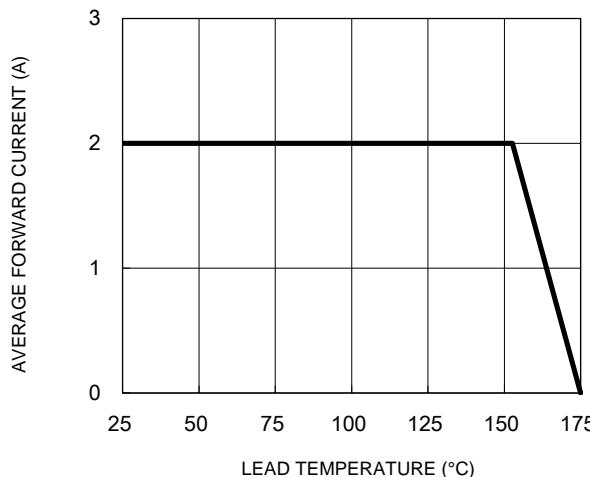


Fig.2 Typical Junction Capacitance

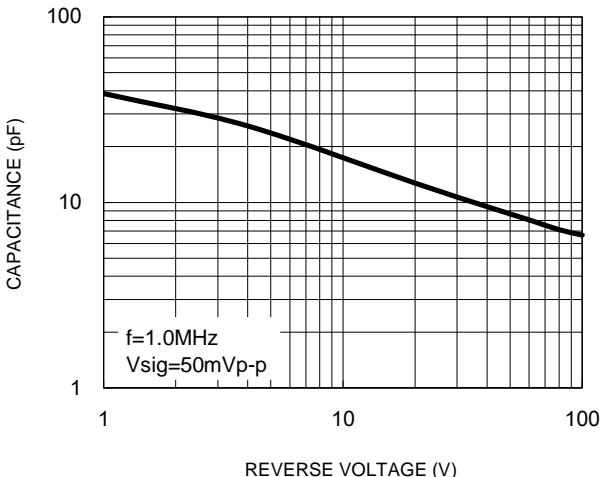


Fig.3 Typical Reverse Characteristics

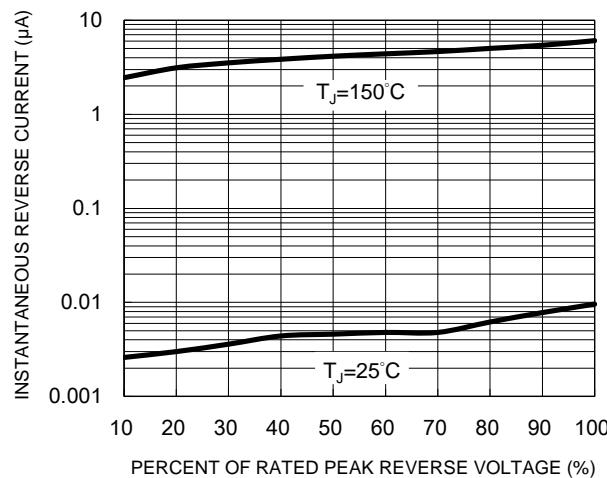
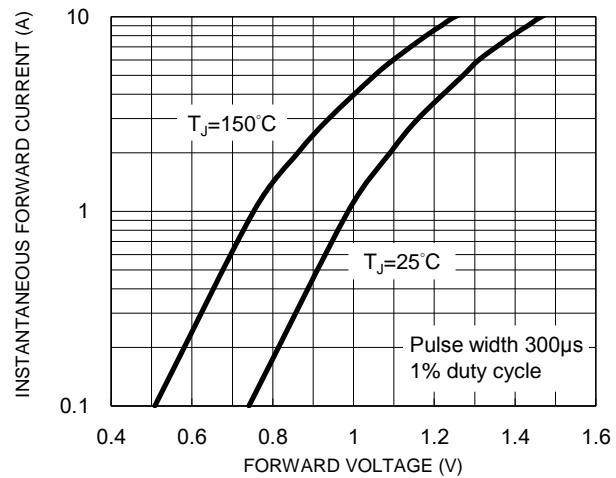
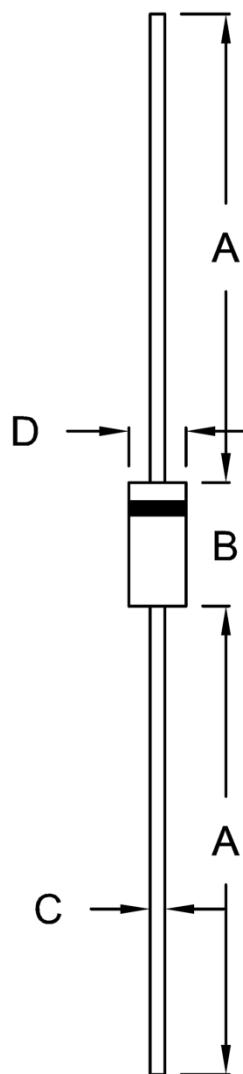


Fig.4 Typical Forward Characteristics



PACKAGE OUTLINE DIMENSIONS
DO-204AC (DO-15)


DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	25.40	-	1.000	-
B	5.80	7.60	0.228	0.299
C	0.70	0.90	0.028	0.035
D	2.60	3.60	0.102	0.142

MARKING DIAGRAM


P/N	= Marking Code
G	= Green Compound
YWW	= Date Code
F	= Factory Code

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