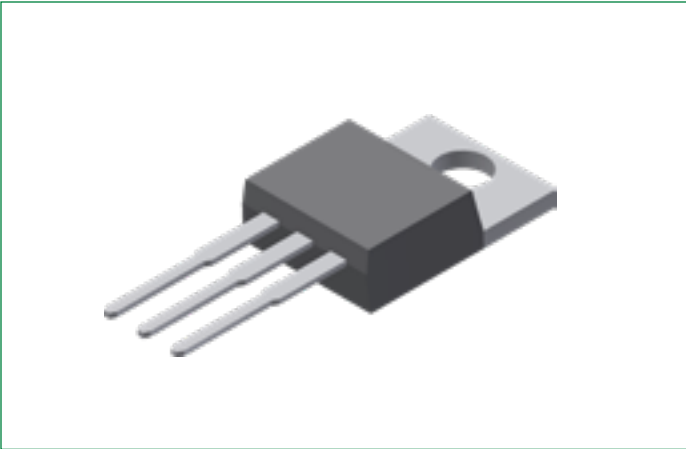


DSA30C60PB

60 V, 30 A Schottky Rectifier Diode

RoHS

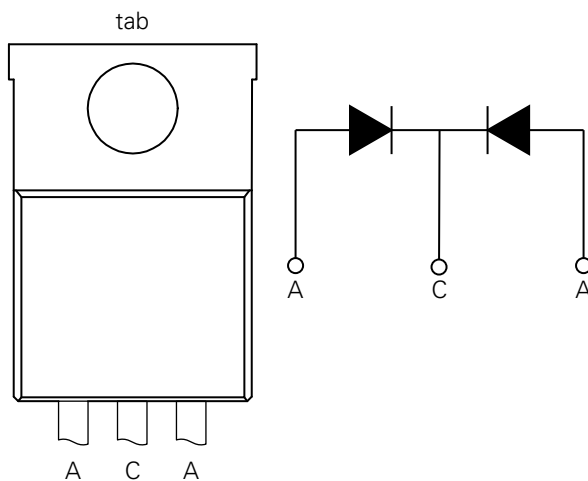
Pb



Features:

- Very low V_f
- Extremely low switching losses
- Low I_{rm} values
- Improved thermal behavior
- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Terminals finish: 100% Pure Tin
- This is a Pb – Free Device
- Epoxy meets UL 94V-0

Pinout Diagram (TO-220-3L AB)



C: Cathode; **A:** Anode; **tab:** Cathode

Applications:

- Rectifiers in Switch Mode Power Supplies (SMPS)
- Free wheeling diode in low voltage converters

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Characteristics	Condition	Max.	Units
V_{RRM}	Peak Repetitive Reverse Voltage	-	60	V
V_{RWM}	Working Peak Reverse Voltage			
V_R	DC Blocking Voltage			
$I_{F(AV)}$	Average Rectified Forward Current	50% duty cycle @ $T_C = 155^\circ\text{C}$, rectangular wave form	15 (Per Leg) 30 (Per Device)	A
I_{FSM}	Peak One Cycle Non-Repetitive Surge Current (Per Leg)	10 ms, Half Sine pulse, $T_J = 25^\circ\text{C}$	340	A
P_{tot}	Total power dissipation	$T_C = 25^\circ\text{C}$	85	W

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Characteristics	Conditions	Typ.	Max.	Units
V_{F1}	Forward Voltage Drop (Per Leg) ¹	@ 15A, Pulse, $T_J = 25^\circ\text{C}$	—	0.88	V
V_{F2}		@ 15A, Pulse, $T_J = 125^\circ\text{C}$	—	0.72	V
I_{R1}	Reverse Current (Per Leg) ¹	@ $V_R = \text{rated } V_R$, $T_J = 25^\circ\text{C}$	—	250	μA
I_{R2}		@ $V_R = \text{rated } V_R$, $T_J = 125^\circ\text{C}$	—	10	mA
C_T	Junction Capacitance (Per Leg)	@ $V_R = 12\text{ V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$	661	—	pF

Note 1: Pulse width < 300 μs , duty cycle < 2%**Thermal-Mechanical Specifications**

Symbol	Characteristics	Condition	Specification	Units
T_J	Junction Temperature	—	-55 to +175	$^\circ\text{C}$
T_O	Operation temperature	—	-55 to +150	$^\circ\text{C}$
T_{stg}	Storage Temperature	—	-55 to +150	$^\circ\text{C}$
M_D	Mounting torque	—	Min 0.4 Max 0.6	Nm
F_C	Mounting force with clip	—	Min 20 Max 60	N
$R_{\theta JC}$	Maximum Thermal Resistance Junction to Case	DC operation	1.75	$^\circ\text{C/W}$
$R_{\theta JS}$	Typical Thermal Resistance Junction to Heat Sink	—	0.5	$^\circ\text{C/W}$
wt	Approximate Weight	—	2	g

Characteristic Curves

Fig. 1. Typical Forward Characteristics

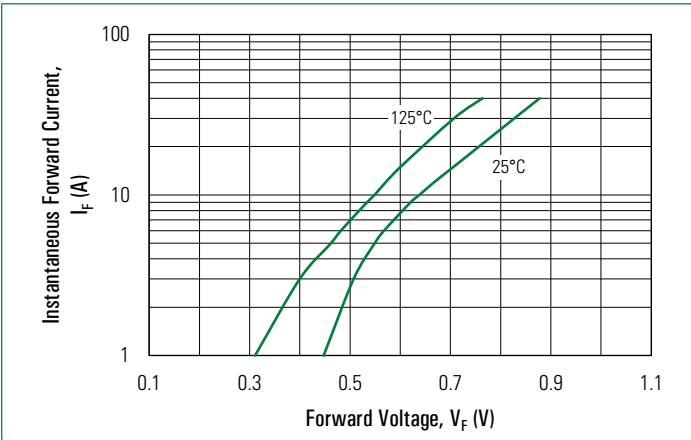


Fig. 2. Typical Reverse Characteristics

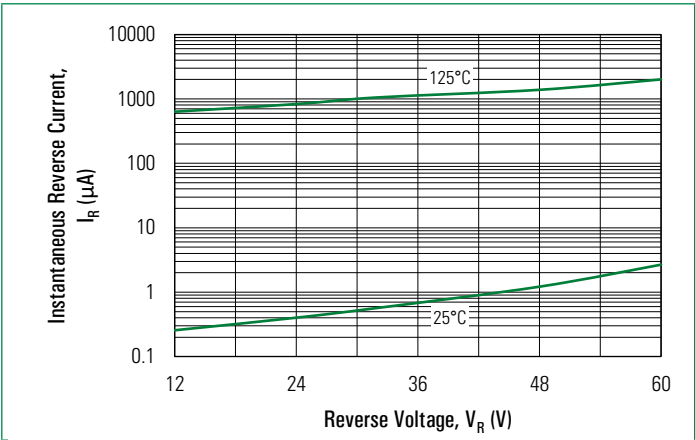
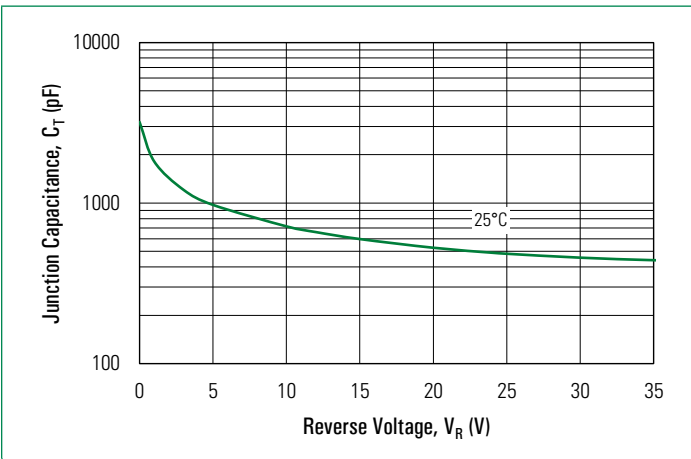
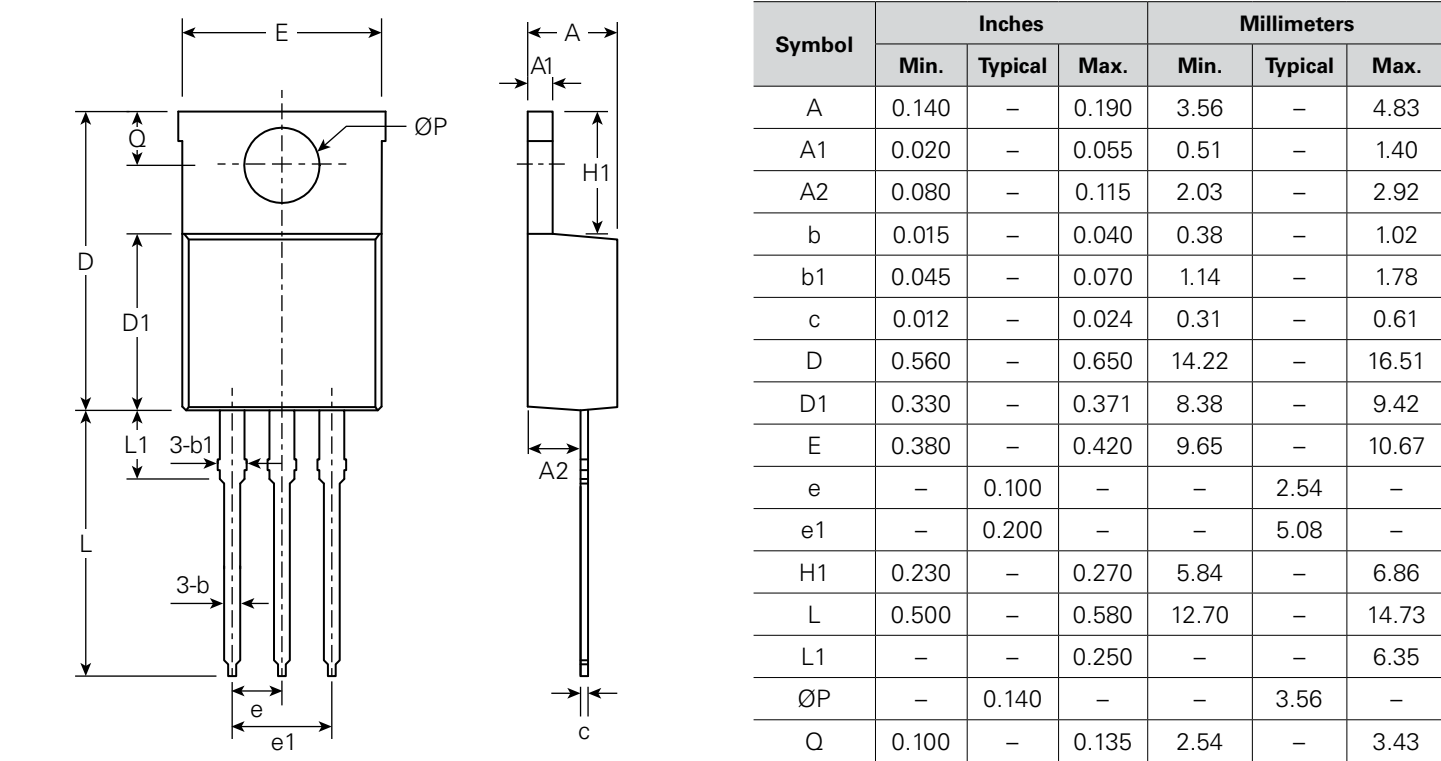


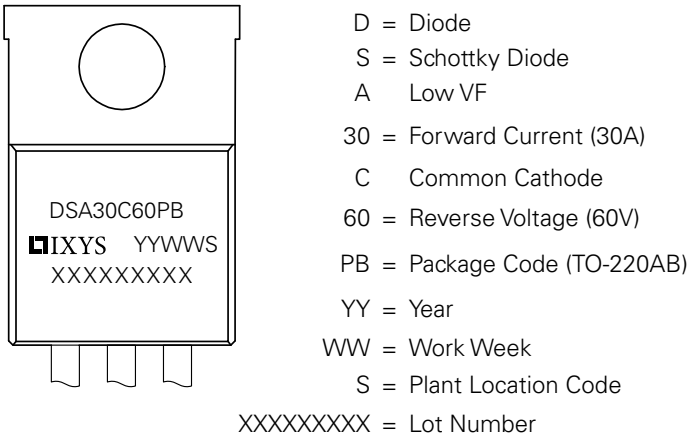
Fig. 3. Typical Junction Capacitance



Part Outline Drawing (TO-220-3L AB)



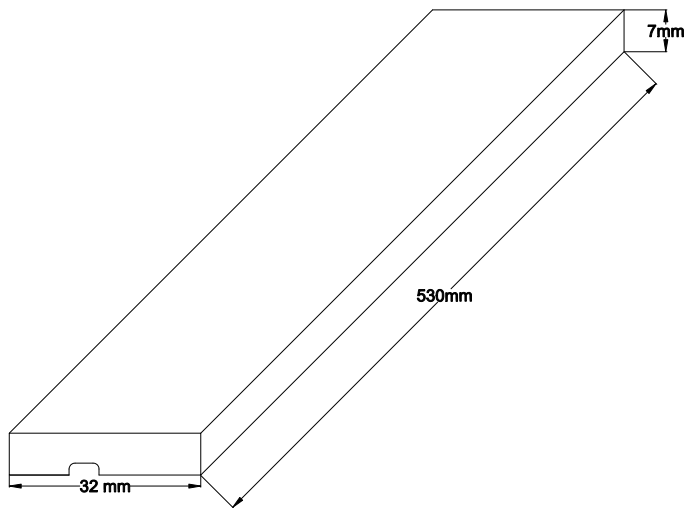
Part Number and Marking



Ordering Information

Part Number	Marking	Packing Mode	Quantity
DSA30C60PB	DSA30C60PB	Tube	50 pcs/ tube

Packing Specifications



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