

MBR0530T1, MBR0530T3

THERMAL CHARACTERISTICS

Rating	Symbol	Value	Unit
Thermal Resistance – Junction-to-Ambient (Note 1)	$R_{\theta JA}$	206	$^{\circ}\text{C/W}$
Thermal Resistance – Junction-to-Lead	$R_{\theta JL}$	150	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS

Maximum Instantaneous Forward Voltage (Note 2) ($i_F = 0.1$ Amps, $T_J = 25^{\circ}\text{C}$) ($i_F = 0.5$ Amps, $T_J = 25^{\circ}\text{C}$)	V_F	0.375 0.43	V
Maximum Instantaneous Reverse Current (Note 2) (Rated DC Voltage, $T_C = 25^{\circ}\text{C}$) ($V_R = 15$ V, $T_C = 25^{\circ}\text{C}$)	I_R	130 20	μA

- 1 inch square pad size (1 x 0.5 inch for each lead) on FR4 board.
- Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2\%$.

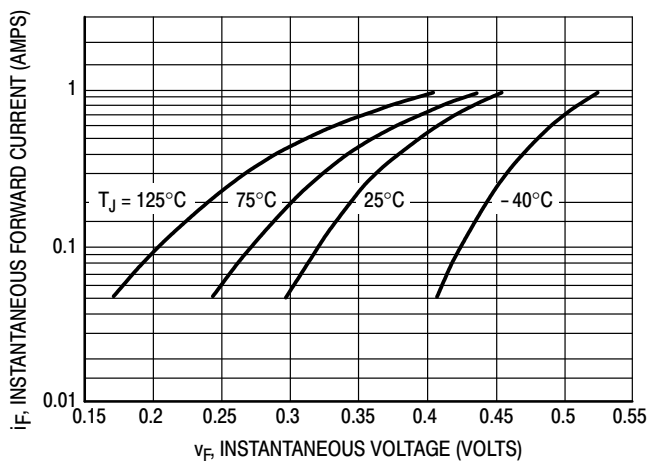


Figure 1. Typical Forward Voltage

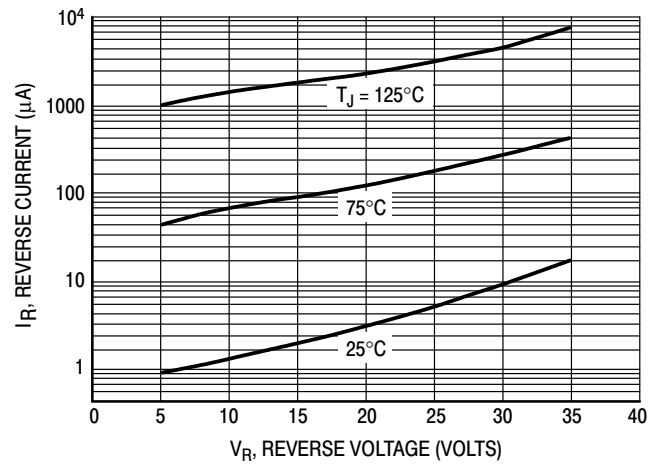


Figure 2. Typical Reverse Current

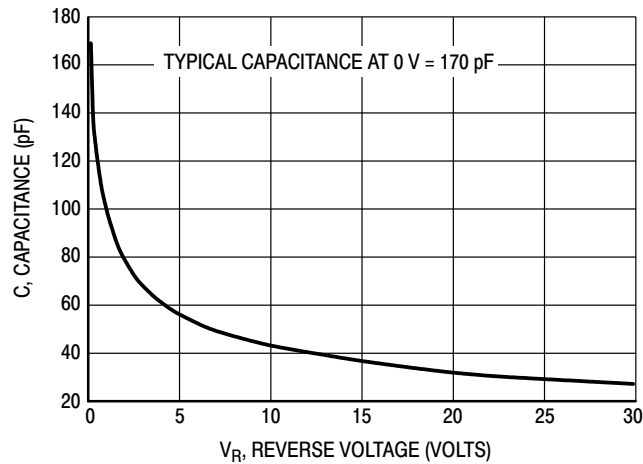


Figure 3. Typical Capacitance

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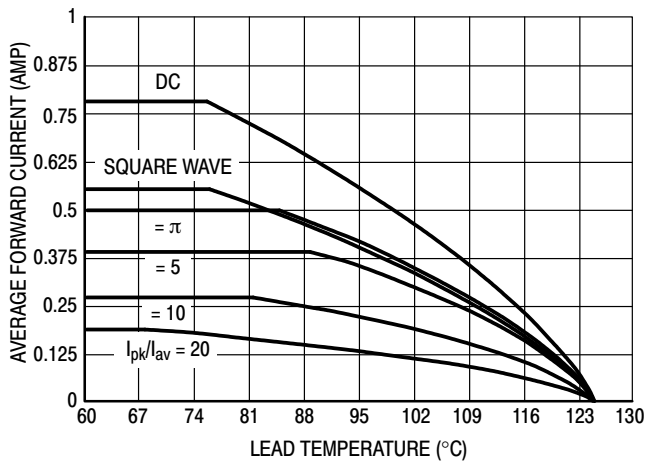


Figure 4. Current Derating (Lead)

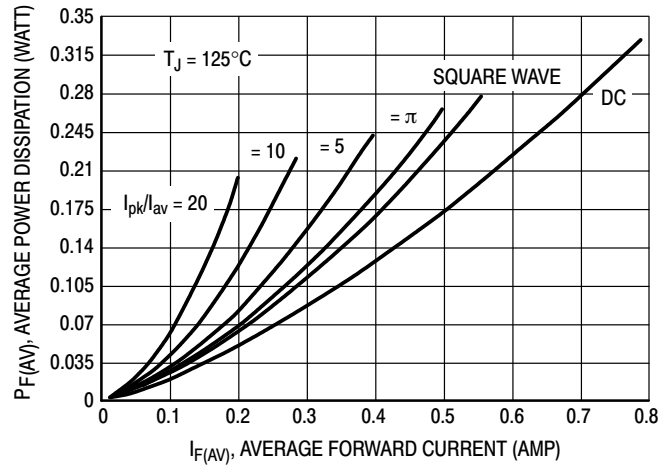


Figure 5. Power Dissipation

ORDERING INFORMATION

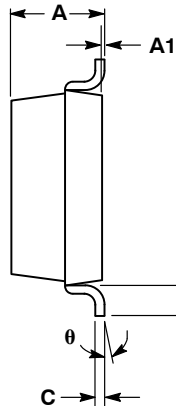
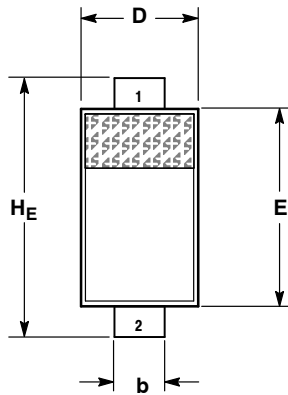
Device	Package	Shipping†
MBR0530T1	SOD-123	3000 / Tape & Reel
MBR0530T1G	SOD-123 (Pb-Free)	3000 / Tape & Reel
MBR0530T3	SOD-123	10,000 Tape & Reel
MBR0530T3G	SOD-123 (Pb-Free)	10,000 Tape & Reel

†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.

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PACKAGE DIMENSIONS

SOD-123
CASE 425-04
ISSUE F



NOTES:

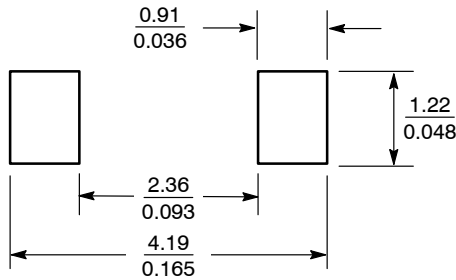
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.94	1.17	1.35	0.037	0.046	0.053
A1	0.00	0.05	0.10	0.000	0.002	0.004
b	0.51	0.61	0.71	0.020	0.024	0.028
c	---	---	0.15	---	---	0.006
D	1.40	1.60	1.80	0.055	0.063	0.071
E	2.54	2.69	2.84	0.100	0.106	0.112
H _E	3.56	3.68	3.86	0.140	0.145	0.152
L	0.25	---	---	0.010	---	---
θ	0°	---	10°	0°	---	10°

STYLE 1:


- PIN 1. CATHODE
2. ANODE

SOLDERING FOOTPRINT*



SCALE 10:1 (mm/inches)

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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