

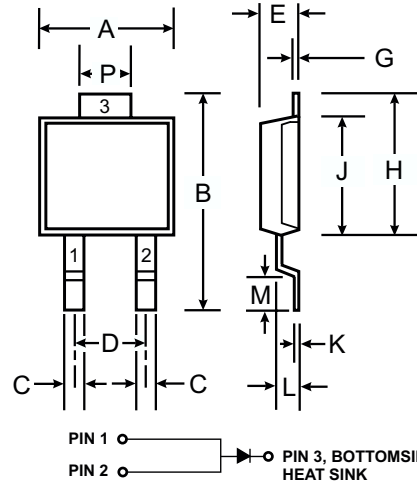
UNDER DEVELOPMENT

Features

- Guard Ring Die Construction for Transient Protection
- Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: POWERMITE®3 Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: Type Number, See also Sheet 2
- Weight: 0.072 grams (approx.)



POWERMITE®3		
Dim	Min	Max
A	4.03	4.09
B	6.40	6.61
C	.889 NOM	
D	1.83 NOM	
E	1.10	1.14
G	.178 NOM	
H	5.01	5.17
J	4.37	4.43
K	.178 NOM	
L	.71	.77
M	.36	.46
P	1.73	1.83
All Dimensions in mm		

Note: Pins 1 & 2 must be electrically connected at the printed circuit board.

Maximum Ratings @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	35	V
RMS Reverse Voltage	V _{R(RMS)}	25	V
Average Rectified Output Current @ T _S = 88°C	I _O	8	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method) @ T _C = 88°C	I _{FSM}	75	A
Typical Thermal Resistance Junction to Case	R _{θJC}	0.9	°C/W
Typical Thermal Resistance Junction to Soldering Point	R _{θJS}	3.2	°C/W
Operating Temperature Range	T _J	-65 to +125	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V _{(BR)R}	35	—	—	V	I _R = 1mA
Forward Voltage (Note 1)	V _{FM}	—	0.47 0.38	0.51 0.41	V	I _F = 8A, T _S = 25°C I _F = 8A, T _S = 125°C
Peak Reverse Current (Note 1)	I _{RM}	—	0.07 7.5	1.4 35	mA	T _S = 25°C, V _R = 35V T _S = 100°C, V _R = 35V

Notes: 1. Short duration test pulse used to minimize self-heating effect.

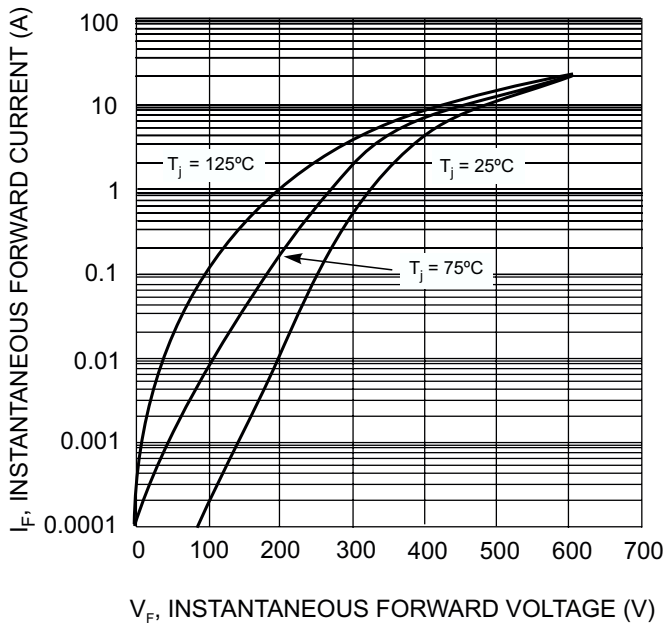


Fig. 1 Typical Forward Characteristics

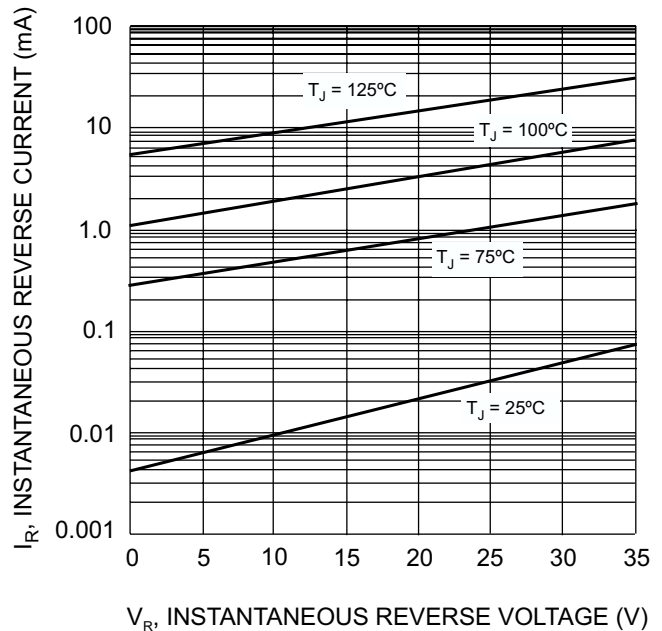


Fig. 2 Typical Reverse Characteristics

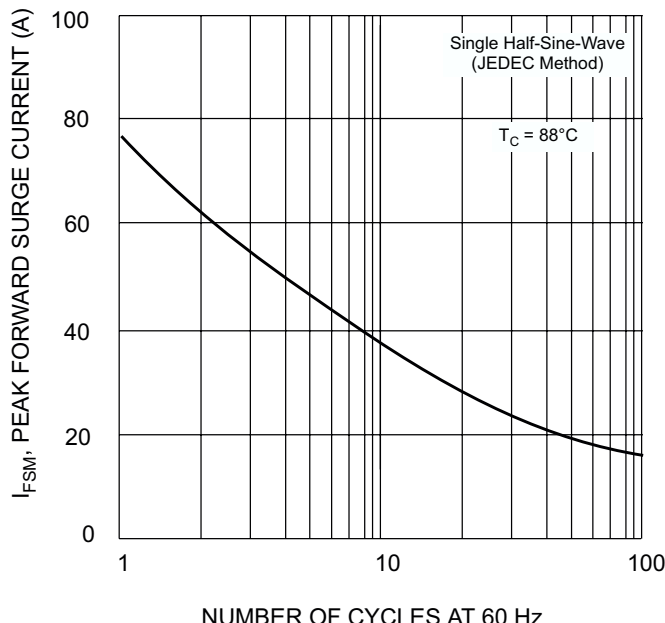


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

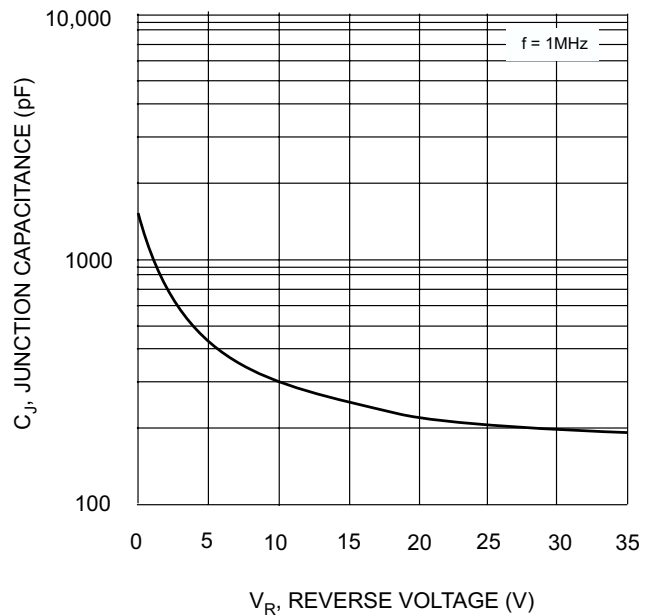


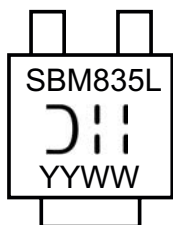
Fig. 4 Typical Junction Capacitance vs. Reverse Voltage

Ordering Information (Note 2)

Device	Packaging	Shipping
SBM835L-13	POWERMITE®3	5000/Tape & Reel

Notes: 2. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



SBM835L = Product type marking code
 ⌋|| = Manufacturers' code marking
 YYWW = Date code marking
 YY = Last digit of year ex: 2 for 2002
 WW = Week code 01 to 52

UNDER DEVELOPMENT

POWERMITE is a registered trademark of Microsemi Corporation.