

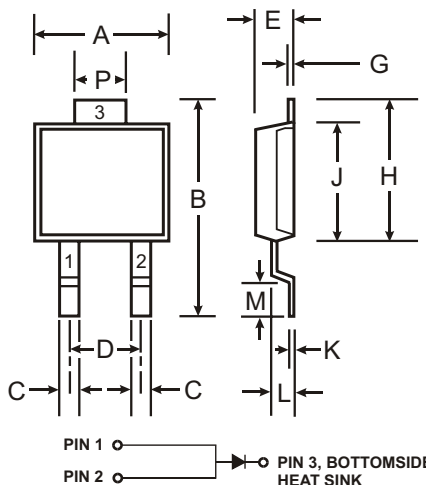
UNDER DEVELOPMENT

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.)



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

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		

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

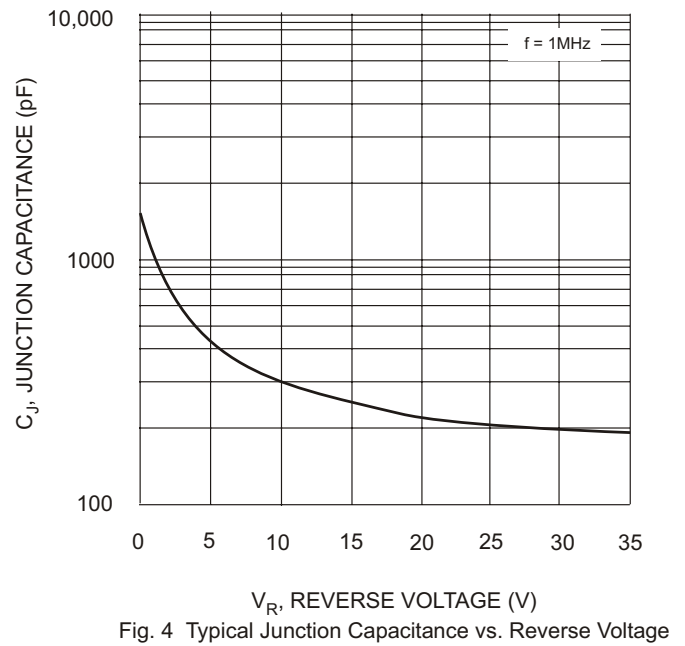
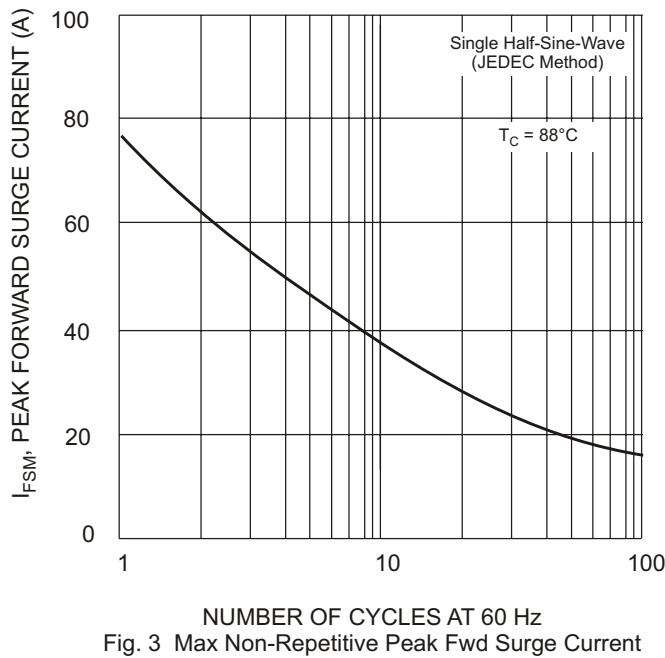
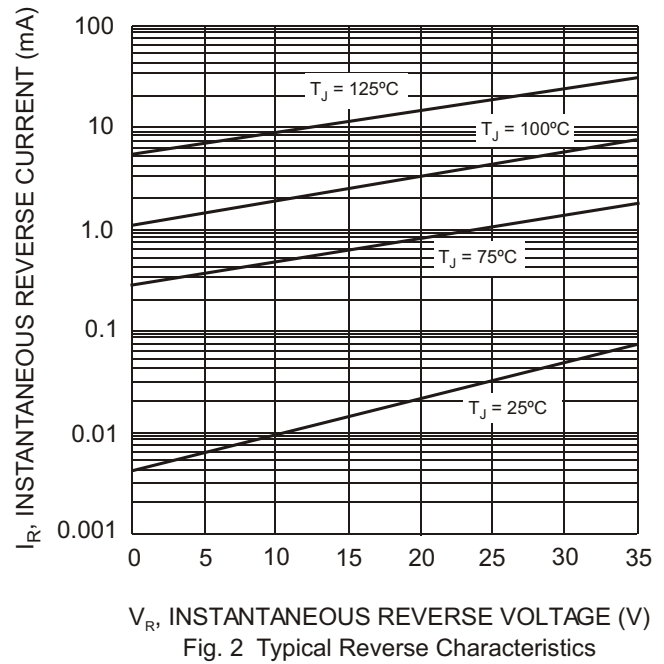
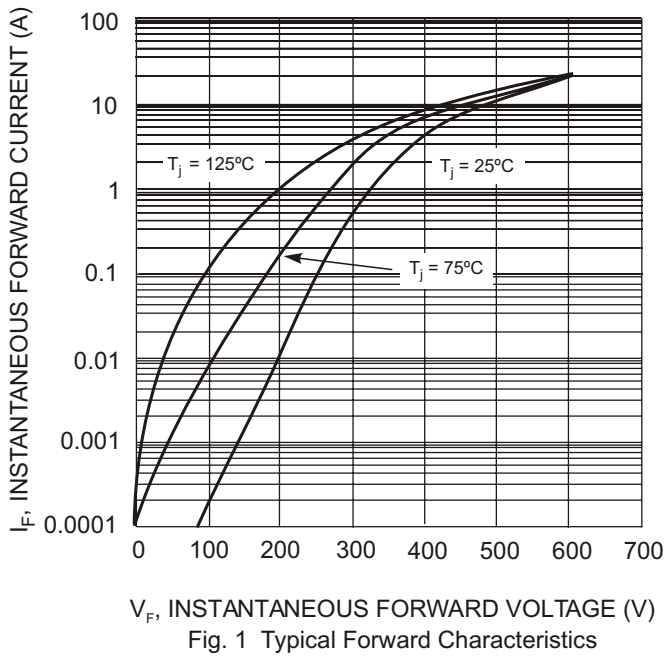
Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

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 @ $T_S = 88^\circ\text{C}$	I_O	8	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method) @ $T_C = 88^\circ\text{C}$	I_{FSM}	75	A
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	0.9	$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Soldering Point	$R_{\theta JS}$	3.2	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	35	—	—	V	$I_R = 1\text{mA}$
Forward Voltage (Note 1)	V_{FM}	—	0.47 0.38	0.51 0.41	V	$I_F = 8\text{A}$, $T_S = 25^\circ\text{C}$ $I_F = 8\text{A}$, $T_S = 125^\circ\text{C}$
Peak Reverse Current (Note 1)	I_{RM}	—	0.07 7.5	1.4 35	mA	$T_S = 25^\circ\text{C}$, $V_R = 35\text{V}$ $T_S = 100^\circ\text{C}$, $V_R = 35\text{V}$

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

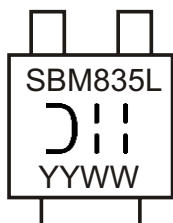


Ordering Information (Note 2)

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
 DII = 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.