



SMABF THRU S3MBF

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 3.0 AMPERE

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Plastic package has Underwriters Laboratory
Flammability Classification 94V-0
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

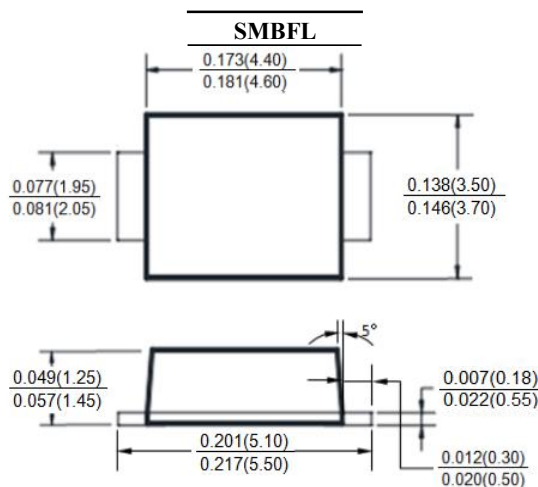
Case: Molded plastic, SMBFL

Terminals: Pure tin plated, lead free

Polarity: Indicated by cathode band

Packaging: 12mm tape per EIA STD RS-481

Weight: 0.060 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	S3ABF	S3BBF	S3DBF	S3GBF	S3JBF	S3KBF	S3MBF	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T _L =75°C	I _(AV)	3.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	80							Amp
Maximum Forward Voltage at 3.0A	V _F	1.15							Volts
Maximum Reverse Current at T _A =25°C at Rated DC Blocking Voltage T _A =125°C	I _R	10 250							μAmp
Typical Junction Capacitance (Note 1)	C _J	40							pF
Typical Thermal Resistance (Note 2)	R _{θJL}	10							°C/W
Maximum Reverse Recovery Time (Note 3)	T _{RR}	2.5							μS
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{stg}	-55 to +150							°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to lead mounted on P.C.B. with 0.4 x 0.4" (10.0 x 10.0mm) copper pad areas

3- Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{RR}=.25A.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1 FORWARD CURRENT DERATING CURVE

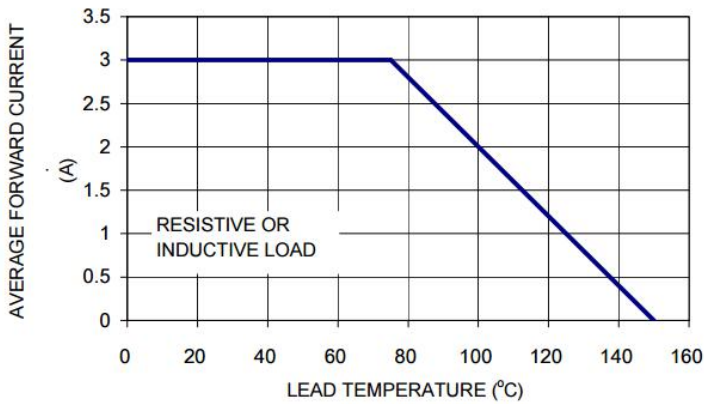


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

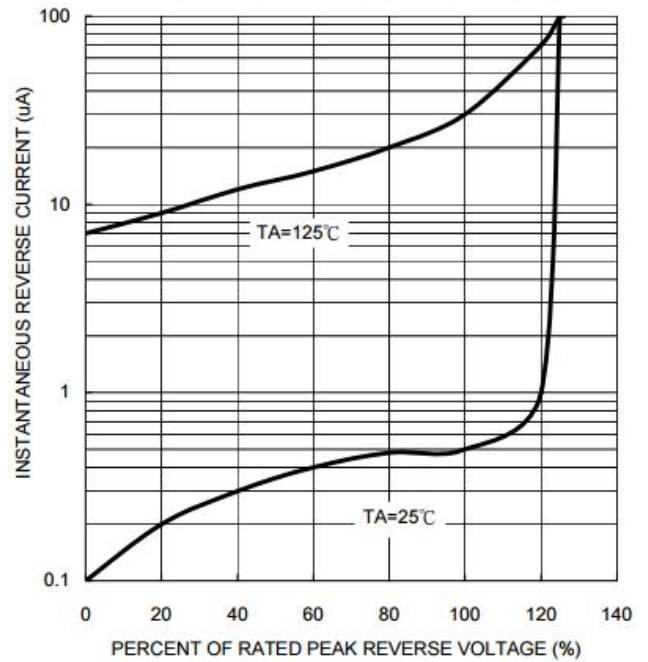


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

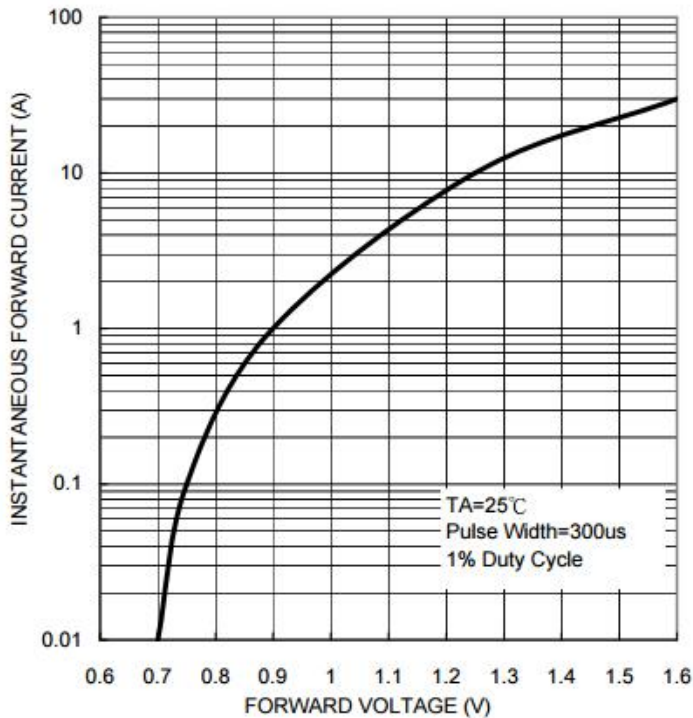


FIG. 4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

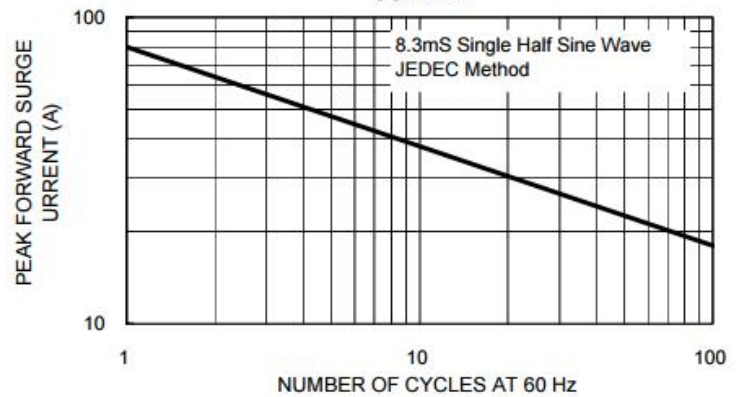


FIG. 5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

