

CURRENT 1.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

S1ABF THRU S1MBF

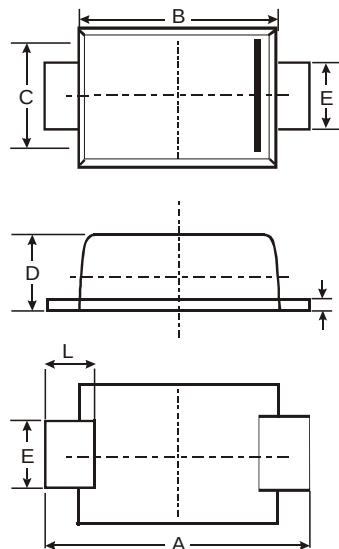
FEATURES

- For surface mounted applications
- Glass passivated junction
- Low profile package
- Built-in strain relief, ideal for automated placement
- Plastic package has underwrites laboratory flammability Classification 94V-0
- High temperature soldering guaranteed:
250 /10 second at terminals

MECHANICAL DATA

- Case: JEDED SMBF molded plastic
- Terminals: Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.002ounce, 0.090 gram

S M B F



Dim	Min	Max	Typ
A	5.45	5.55	5.50
B	4.27	4.33	4.30
C	3.57	3.63	3.60
D	1.32	1.38	1.35
E	1.96	2.00	1.98
H	0.019	0.021	0.20
L	0.73	0.77	0.75
All Dimensions in mm			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 ambient temperature unless otherwise specified.
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

		SYMBOLS	S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNIT
Maximum Repetitive 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 (see Fig.1)		I _{F(AV)}	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) T _L =90		I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A		V _F	1.1							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage at	T _A = 25	I _R	5.0							A
	T _A = 125		50							
Typical Junction Capacitance (NOTE 1)		R _{θJA}	50							/W
		R _{θJL}	90							
Typical Thermal Resistance (NOTE 2)		t	2							us
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +150							

Notes:

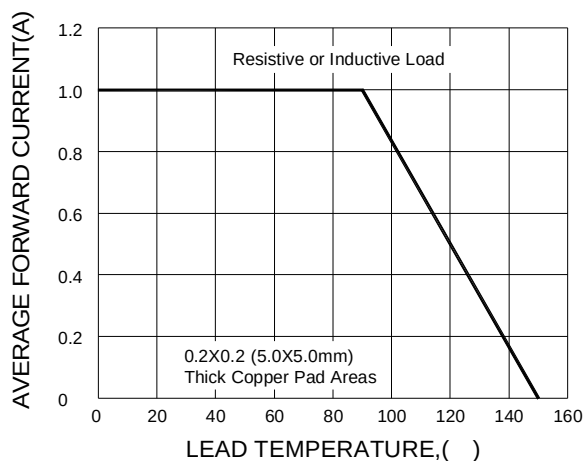
1. Thermal resistance from Junction to ambient and from junction to lead mounted on 0.2×0.2" (5.0 × 5.0mm) copper pad areas.
2. Reverse recovery test condition: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

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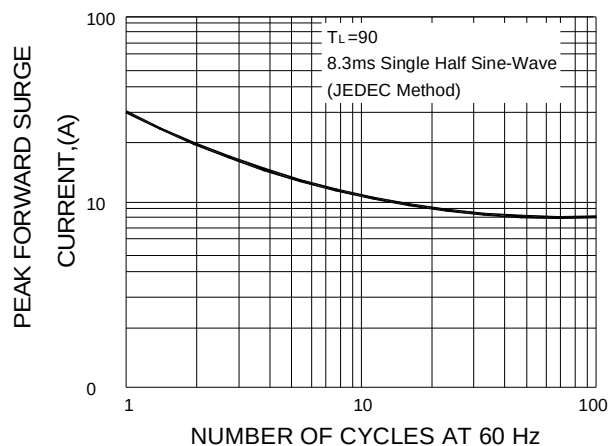
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RATING AND CHARACTERISTIC CURVES S1A Thru S1M

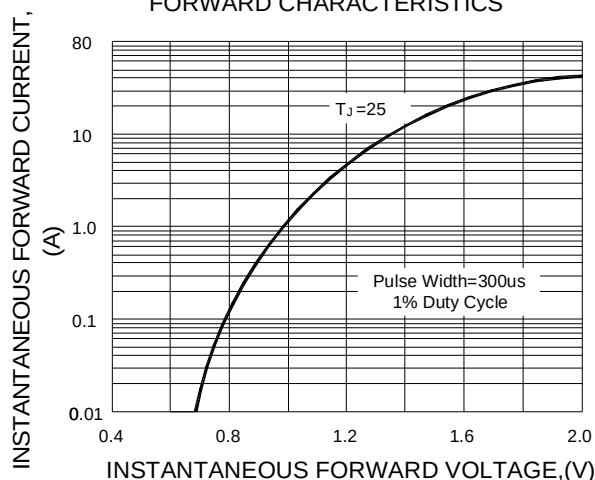
F1G.1-FORWARD CURRENT DERATING CURVE



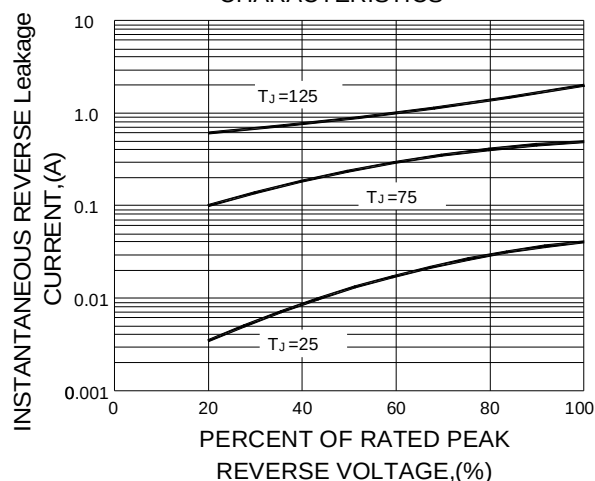
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



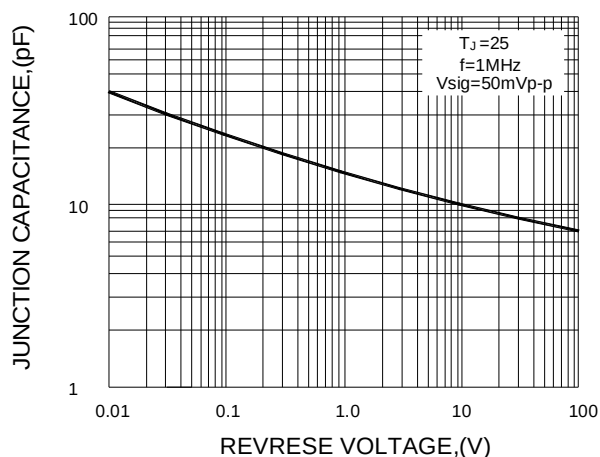
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TRANSIENT THERMAL IMPEDANCE

