

1 AMP SURFACE MOUNT RECTIFIERS

FEATURES

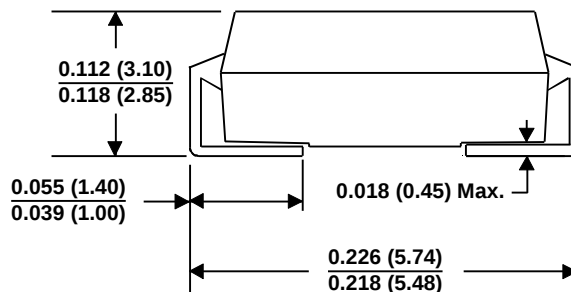
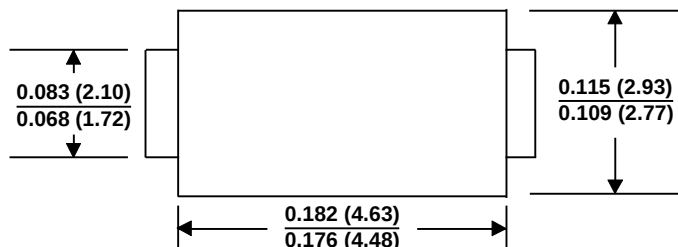
- Low profile package - designed for surface mount applications
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction
- High temperature soldering: 250 °C/10 seconds at terminals

MECHANICAL DATA

- Case: Molded epoxy, U/L Flammability Rating 94V-0
- Terminals: Solder plated
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band identifies cathode terminal
- Weight: 0.004 Ounces (0.115 Grams)

MECHANICAL SPECIFICATION

SERIES S1A - S1M



MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

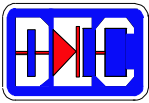
PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS							UNITS
Series Number		S1A	S1B	S1D	S1G	S1J	S1K	S1M	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current @ TL = 110 °C	I(AV)	1.0							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load- JEDEC Method) TL = 110 °C	IFSM	40.0							
Maximum Instantaneous Forward Voltage at 1.0 Amp DC	VFM	1.10							VOLTS
Maximum DC Reverse Current At Rated DC Blocking Voltage @ TA = 25 °C	IRM	1.0							μA
@ TA = 125 °C		50.0							
Typical Reverse Recovery Time (Note 1)	TRR	1.8							μS
Typical Junction Capacitance (Note 2)	CJ	12.0							pF
Typical Thermal Resistance (Note 3)	RθJL RθJA	27.0 75.0							°C/W
Operating and Storage Temperature Range	TJ ,TSTG	-55 to +150							°C

NOTES: (1) Reverse Recovery Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

(2) Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 Volts

(3) Thermal Resistance From Junction to Ambient and Junction to Lead Mounted on 0.2" x 0.2" (5.0mm x 5.0mm) Copper Pad A reas

3.0001s1a



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RATING & CHARACTERISTIC CURVES FOR SERIES S1A - S1M

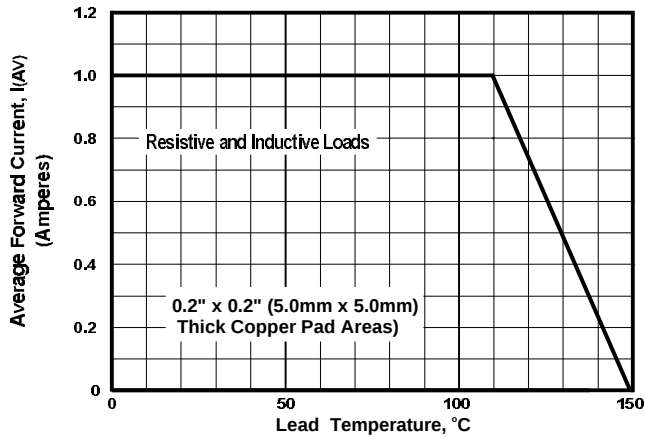


FIGURE 1. FORWARD CURRENT DERATING CURVE

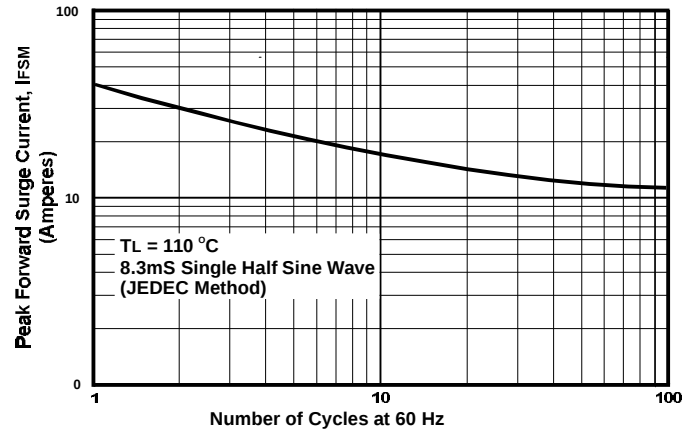


FIGURE 2. MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

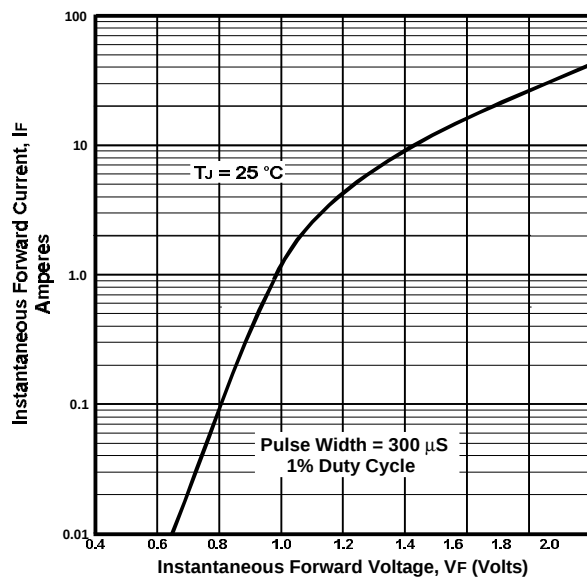


FIGURE 3. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

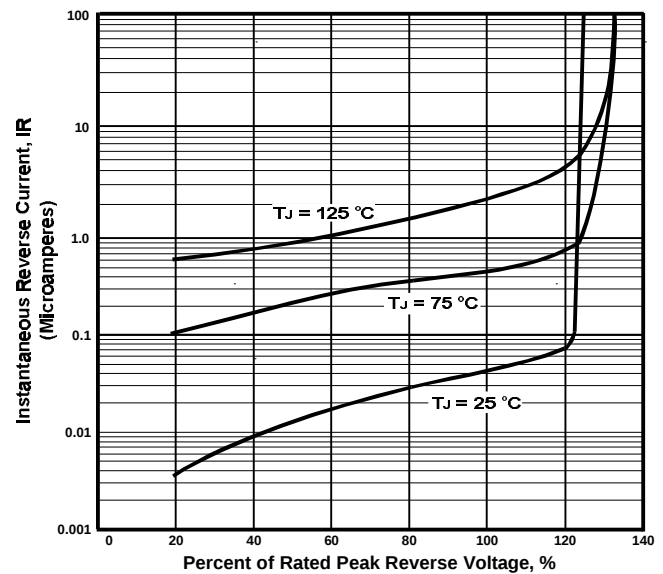


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

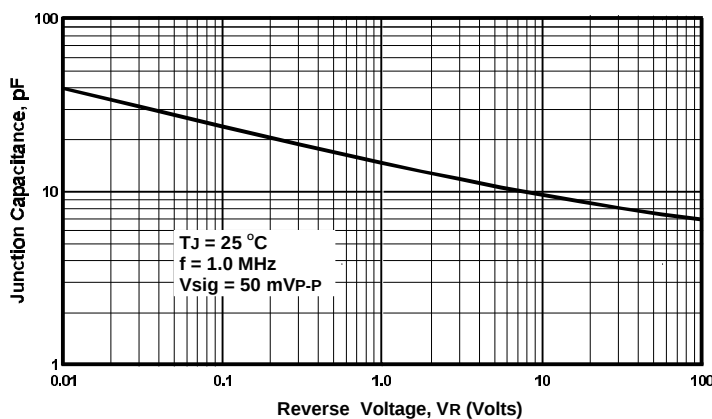


FIGURE 5. TYPICAL JUNCTION CAPACITANCE

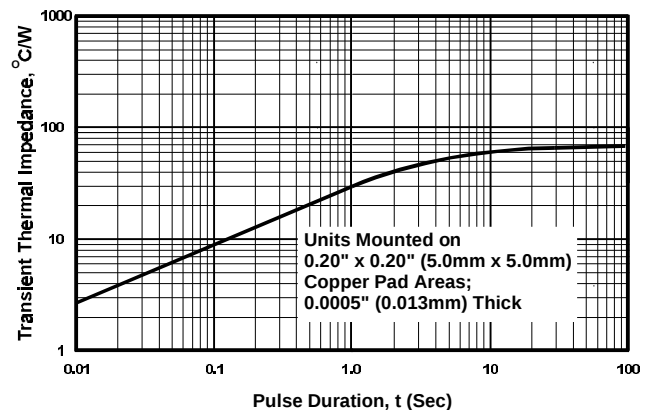


FIGURE 6. TRANSIENT THERMAL IMPEDANCE