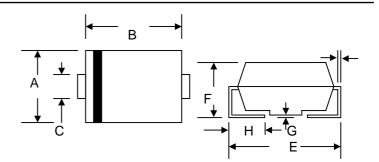
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Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



1.0A SURFACE MOUNT FAST RECOVERY RECTIFIER

Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

SMA/DO-214AC										
Dim	Min	Max	Min	Max						
Α	2.50	2.90	0.098	0.114						
В	4.00	4.60	0.157	0.181						
С	1.40	1.60	0.055	0.063						
D	0.152	0.305	0.006	0.012						
Е	4.80	5.28	0.189	0.208						
F	2.00	2.44	0.079	0.096						
G	0.051	0.203	0.002	0.008						
Н	0.76	1.52	0.030	0.060						
	In mm		In inch							

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic		Symbol	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		VRRM VRWM VR	50	100	200	400	600	800	1000	V
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T _L = 90°C		lo	1.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	30							А
Forward Voltage @I _F = 1.0A		VFM	1.30							V
$ \begin{array}{lll} \mbox{Peak Reverse Current} & \mbox{@T}_{\mbox{\scriptsize A}} = 25^{\circ}\mbox{C} \\ \mbox{At Rated DC Blocking Voltage} & \mbox{@T}_{\mbox{\scriptsize A}} = 125^{\circ}\mbox{C} \\ \end{array} $		lгм	5.0 300							μΑ
Reverse Recovery Time (Note 1)		trr	150 25				250	250 500		nS
Typical Junction Capacitance (Note 2)		Cj	10							pF
Typical Thermal Resistance (Note 3)		RθJL	32						K/W	
Operating and Storage Temperature Range		Tj, Tstg	-50 to +150						°C	

Note: 1. Measured with 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 V DC.
- 3. Mounted on P.C. Board with 8.0mm^2 land area.

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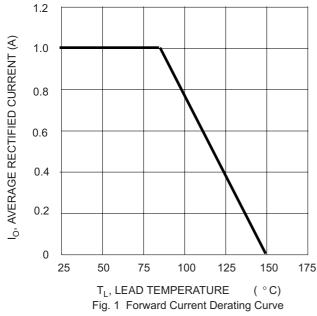
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I_{ESM}, PEAK FORWARD SURGE CURRENT (A)

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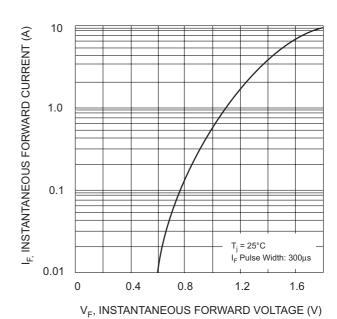
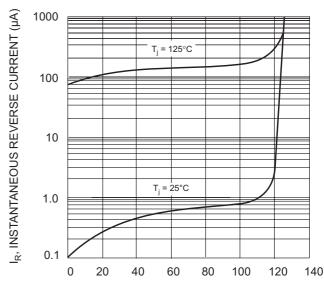


Fig. 2 Typical Forward Characteristics

Single Half-Sine-Wave (JEDEC Method)

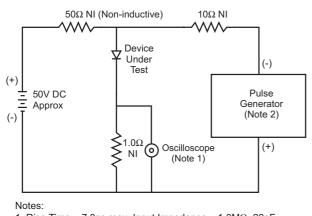
T_j = 150°C

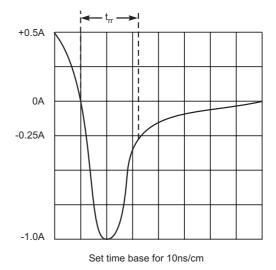


NUMBER OF CYCLES AT 60Hz Fig. 3 Forward Surge Current Derating Curve

10

PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 4 Typical Reverse Characteristics





1. Rise Time = 7.0ns max. Input Impedance = $1.0M\Omega$, 22pF.

2. Rise Time = 10ns max. Input Impedance = 50Ω .

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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