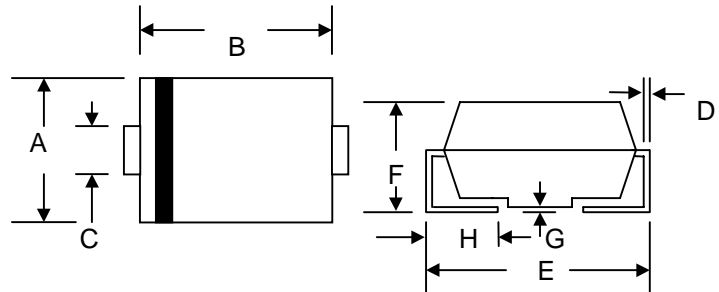


1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

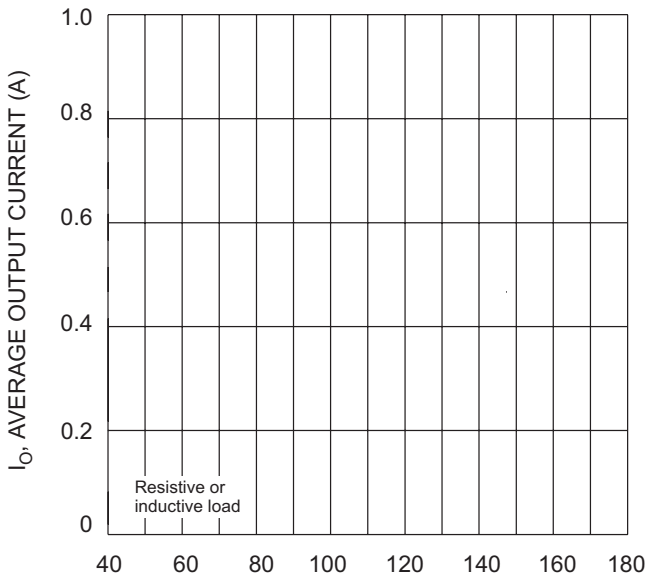
- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

SMA/DO-214AC		
Dim	Min	Max
A	2.50	2.90
B	4.00	4.60
C	1.40	1.60
D	0.152	0.305
E	4.80	5.28
F	2.00	2.44
G	0.051	0.203
H	0.76	1.52
All Dimensions in mm		

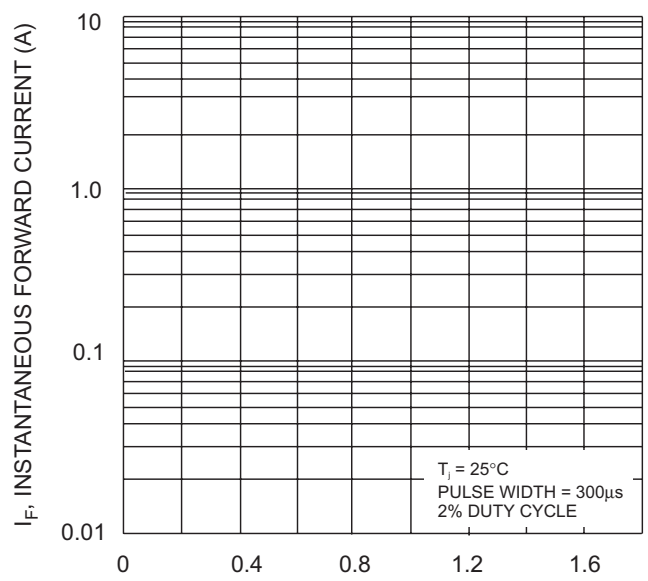
Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	M1	M2	M3	M4	M5	M6	M7	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}									
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	V_R									
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V	
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	I_O	1.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30								A
Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	1.10								V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_{RM}	5.0 200								μA
Reverse Recovery Time (Note 1)	t_{rr}	2.5								μS
Typical Junction Capacitance (Note 2)	C_j	15								pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	30								K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +175								$^\circ\text{C}$

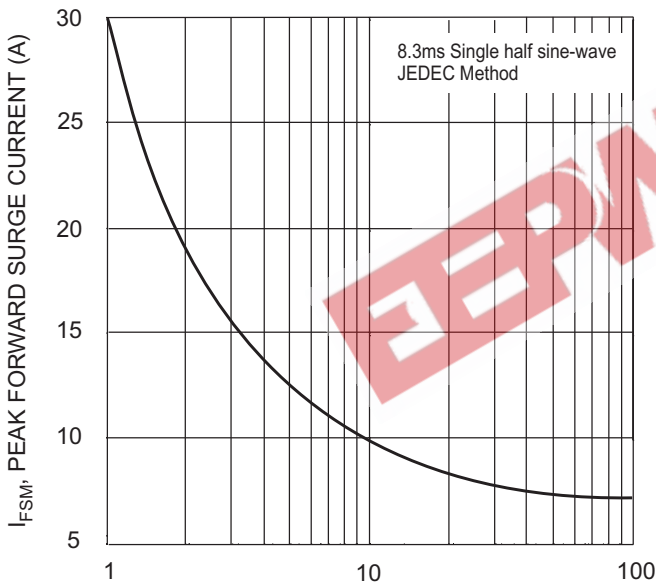
Note: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$,
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on P.C. Board with 8.0mm² land area.



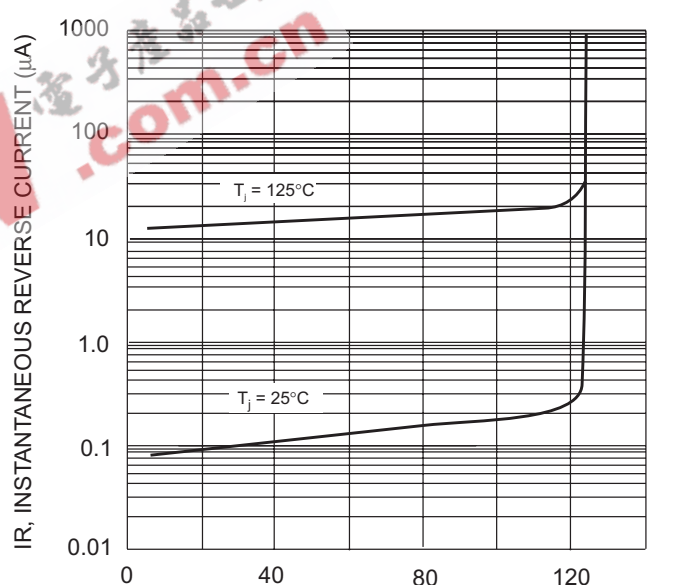
T_L , LEAD TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES @ 60Hz
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



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

ORDERING INFORMATION

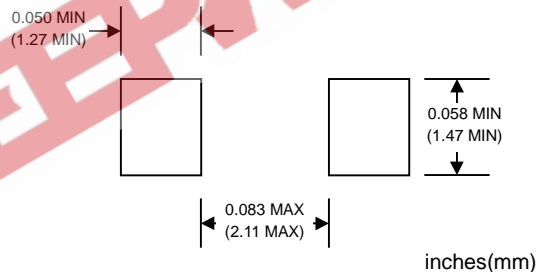
Product No.♦	Package Type	Shipping Quantity
M1-T1	SMA	1800/Tape & Reel
M1-T3	SMA	5000/Tape & Reel
M2-T1	SMA	1800/Tape & Reel
M2-T3	SMA	5000/Tape & Reel
M3-T1	SMA	1800/Tape & Reel
M3-T3	SMA	5000/Tape & Reel
M4-T1	SMA	1800/Tape & Reel
M4-T3	SMA	5000/Tape & Reel
M5-T1	SMA	1800/Tape & Reel
M5-T3	SMA	5000/Tape & Reel
M6-T1	SMA	1800/Tape & Reel
M6-T3	SMA	5000/Tape & Reel
M7-T1	SMA	1800/Tape & Reel
M7-T3	SMA	5000/Tape & Reel

Products listed in **bold** are WTE Preferred devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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