

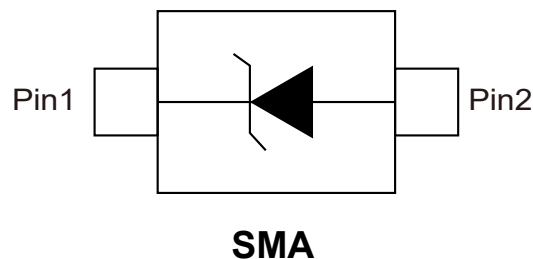
1.Features

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

2.Mechanical Data

- Case: JEDEC DO-214AC molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight:0.003 ounce, 0.093 grams

3.Pinning information





4. Maximum Ratings And Electrical Characteristics

Parameter	Symbols	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
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 at $T_L=110^{\circ}\text{C}$	$I_{(AV)}$	1							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1							Volts
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}\text{C}$	5							uA
	$T_A=100^{\circ}\text{C}$								
Typical junction capacitance (NOTE 1)	C_J	15							pF
Typical thermal resistance (NOTE 2)	R_{qJA}	75							$^{\circ}\text{C/W}$
Junction and storage temperature range	T_J, T_{STG}	-55 to 150							$^{\circ}\text{C}$

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

Notes:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas.



5. Typical characteristic

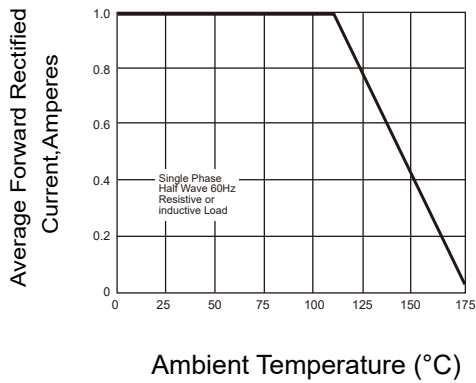


Figure 1: Forward Current Derating Curve

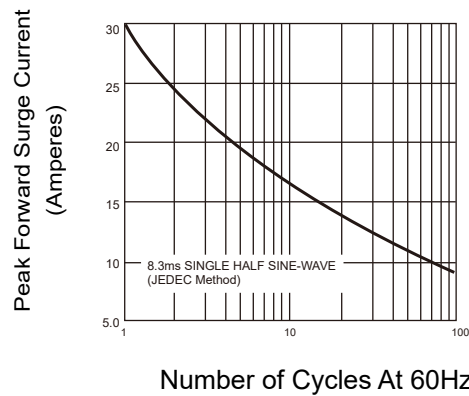


Figure 2: Maximum Non-repetitive Peak Forward Surge Current

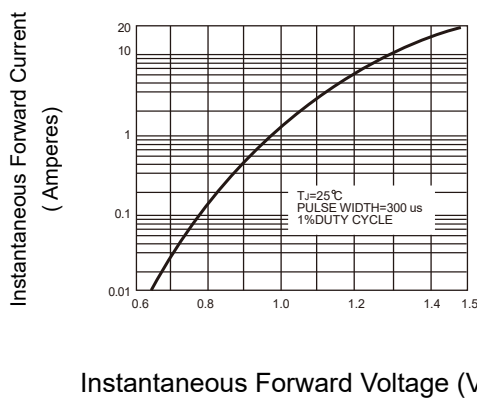


Figure 3: Typical Instantaneous Forward Characteristics

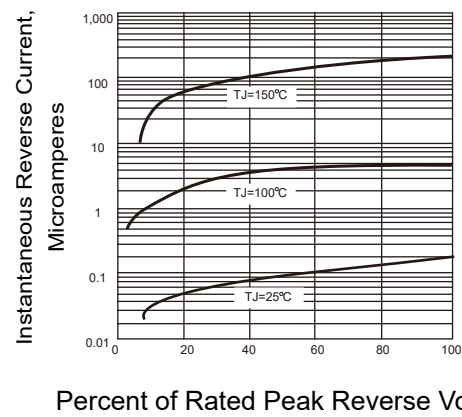


Figure 4: Typical Reverse Characteristics

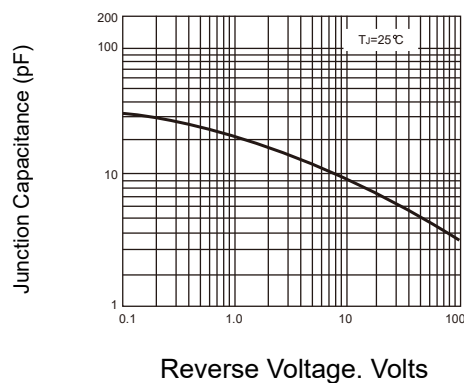


Figure 5: Typical Junction Capacitance

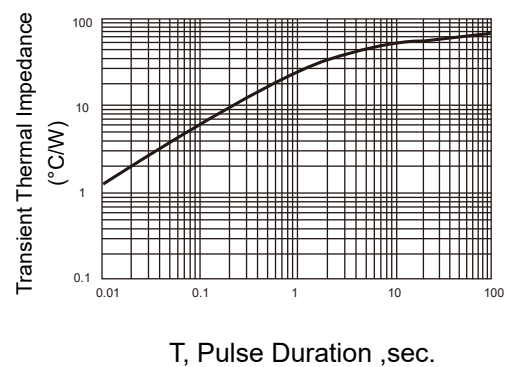
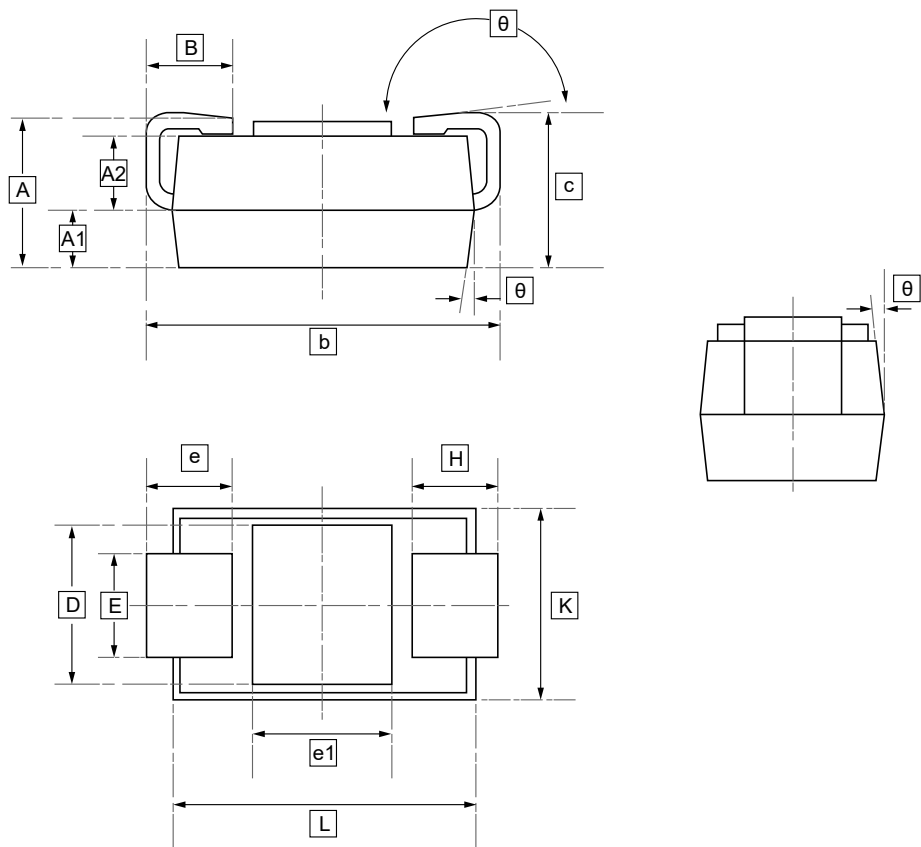


Figure 6: Typical Transient Thermal Impedance



SURFACE MOUNT GENERAL RECTIFIER
Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

6.SMA Package Outline Dimensions



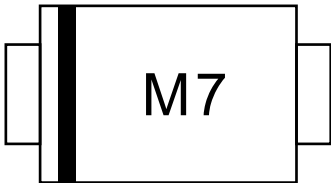
DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	B	b	c	D	E	e1	L	K	θ
Min	1.95	0.70	0.90	0.78	4.93	1.95	2.0	1.25	1.90	4.20	2.35	0°
Max	2.29	0.90	1.10	1.52	5.28	2.25	2.25	1.65	2.10	4.40	2.79	5°



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Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

7 .Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW 1N4007(M7)	SMA	2000	Tape and reel



8.Disclaimer

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