M1_7

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

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
- RoHS compliant package

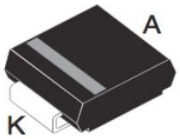
Mechanical Data

- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight:0.003 ounce, 0.065 grams

Package type：SMA

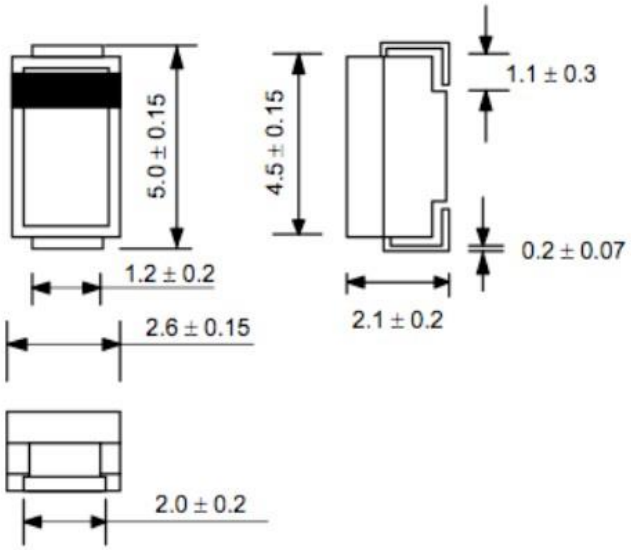
Packing & Order Information

5,000/Reel



RoHS
COMPLIANT

SMA (DO-214AC)



Dimensions in millimeters

Graphic symbol

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Rating	Symbol	M1	M2	M3	M4	M5	M6	M7	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc = 50°C	$I_{F(AV)}$	1.0							A
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	27							°C/W

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Single phase, half wave, 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

Rating	Symbol	KBL 400	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	Unit
Peak Forward Surge Current, Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30							V
Maximum Forward Voltage per Diode at F = 1.0 A	V_F	1.1							V
Maximum DC Reverse Current Ta = 25°C	I_R	5							V
at Rated DC Blocking Voltage Ta = 100°C		200							A
Typical Junction capacitance (Note 1)	C_J	15							°C
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150							°C

NOTE:
1.Pulse test: Pulse width 300us, duty cycle 1%

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■RATING AND CHARACTERISTIC CURVES

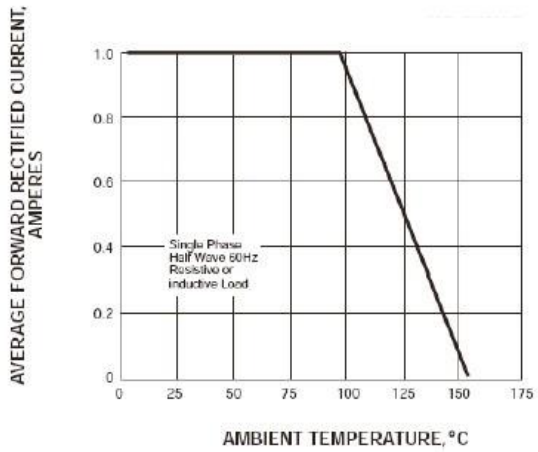

FIG.1 – FORWARD CURRENT DERATING CURVE

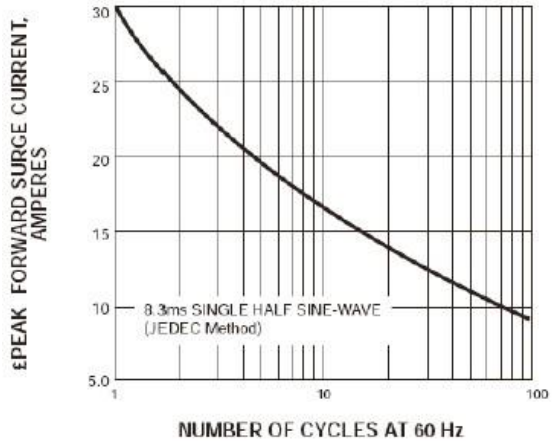

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

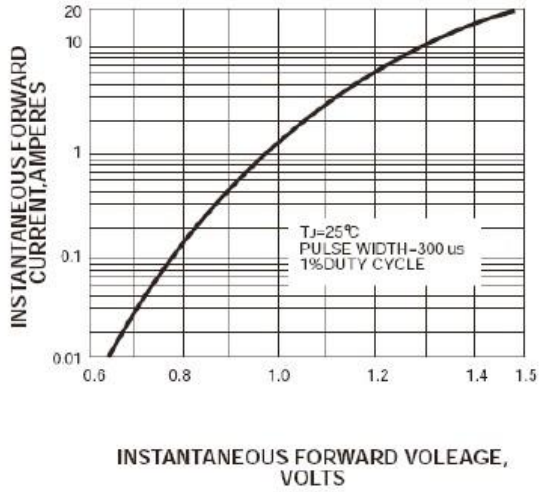

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

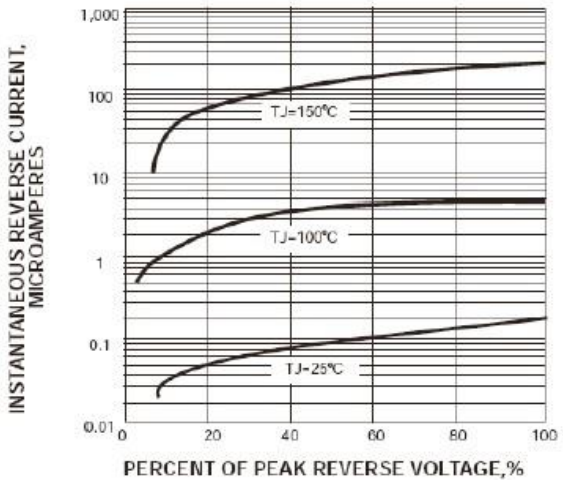

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

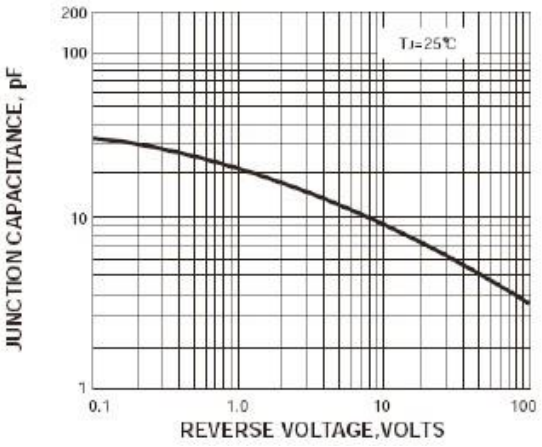

FIG.5 - TYPICAL JUNCTION CAPACITANCE

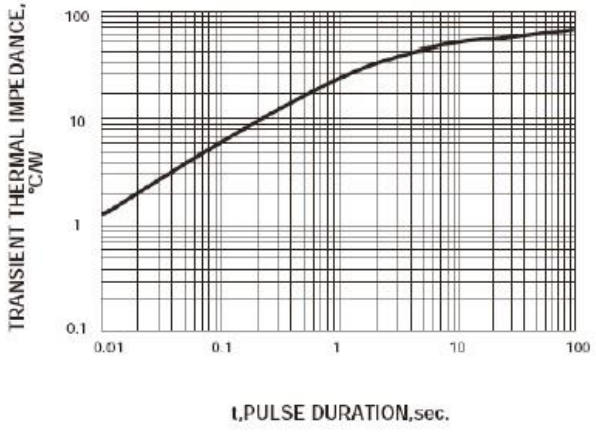

FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

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

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