

Kingtronics®

M1 THRU M7

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 1.0 Ampere

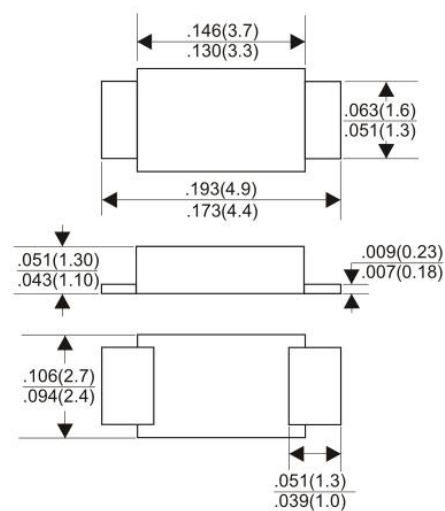
FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

SMAF



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%

Catalog Number	SYMBOLS	M1	M2	M3	M4	M5	M6	M7	UNIT	
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 375"(9.5mm) Lead Length At $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L = 90^\circ\text{C}$	I_{FSM}	30							Amps	
Maximum instantaneous forward voltage per at 1.0A	V_F	1.0							VOLTS	
Maximum DC Reverse Current at Rated DC Blocking Voltage at	I_R	$T_A = 25^\circ\text{C}$							5	uA
		$T_A = 100^\circ\text{C}$								
Typical Junction Capacitance (Note 1)	C_J	9							pF	
Typical Thermal Resistance $R_{\theta JL}$ (Note 2)	$R_{\theta JL}$	110							$^\circ\text{C/W}$	
Operating and Storage Temperature Rang	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

Note:1.Measured at 1MHZ and applied reverse voltage of 4.0VD.C

2.Thermal resistance from junction to ambient

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

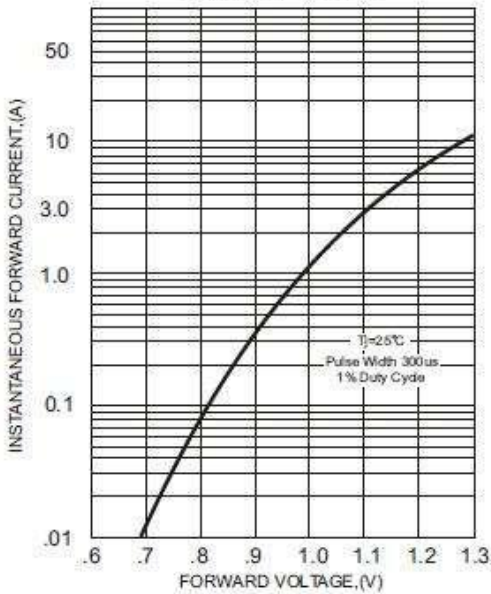


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

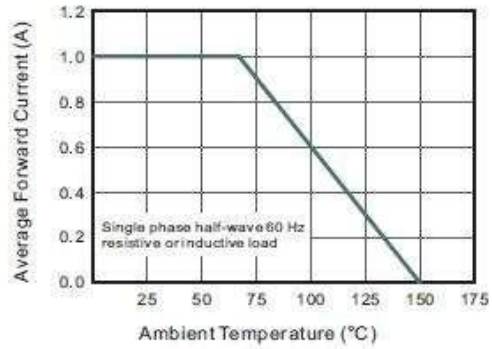


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

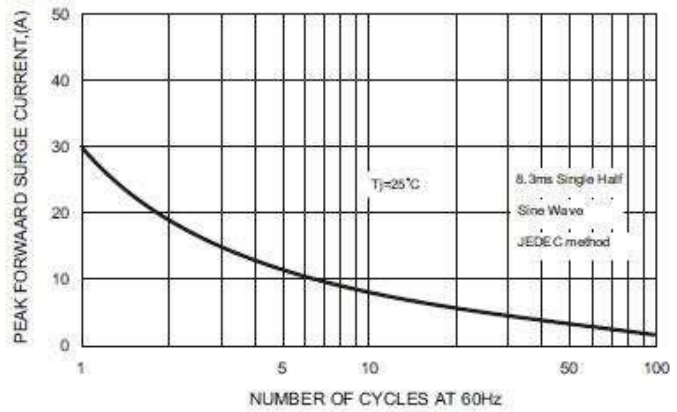


FIG.3 - TYPICAL REVERSE

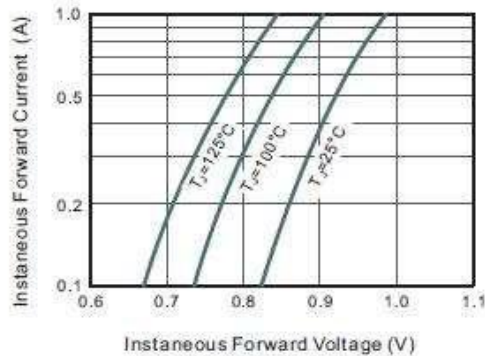
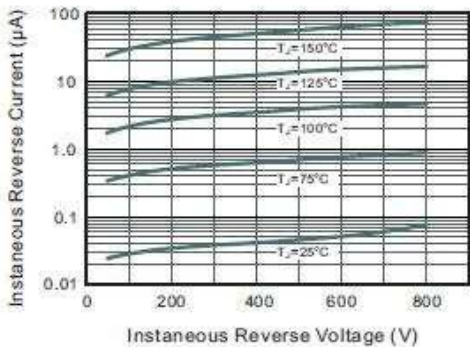
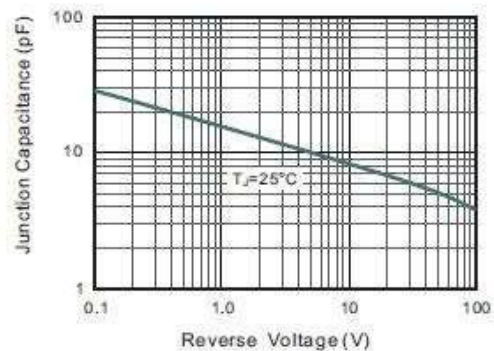


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.