

Kingtronics®

1A1 THRU 1A7

General Purpose Plastic Rectifier

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

FEATURES

- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering guaranteed
- 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs(2.3kg) tension

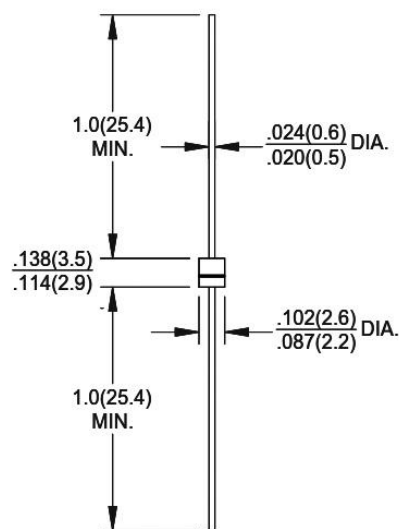
MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any

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%

R-1



Dimensions in inches and (millimeters)

	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	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 (FIG.1) 0.375" (9.5mm) lead length at $T_A=25^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current, 8.3 ms Single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking voltage	$T_A = 25^\circ\text{C}$	5.0							uA
	$T_A = 100^\circ\text{C}$	100							
Typical Junction Capacitance (NOTE 1)	C_J	25							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	60							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

1- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2- Thermal Resistance from Junction to Ambient at .375" (9.5mm) lead length, P.C. board mounted.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

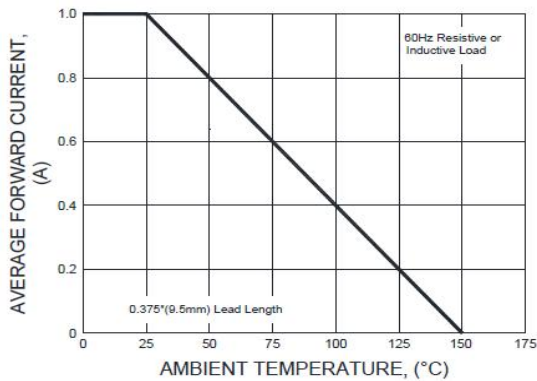


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

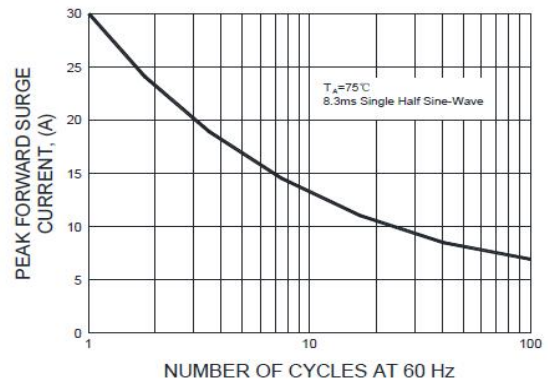


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

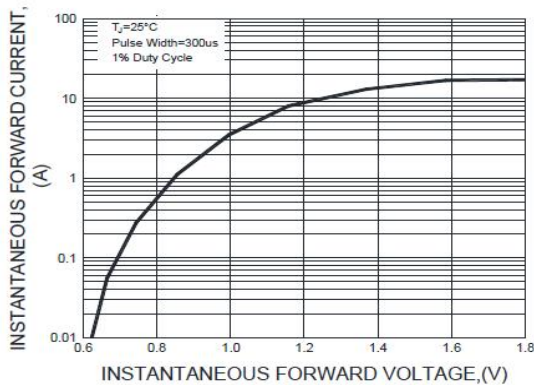


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

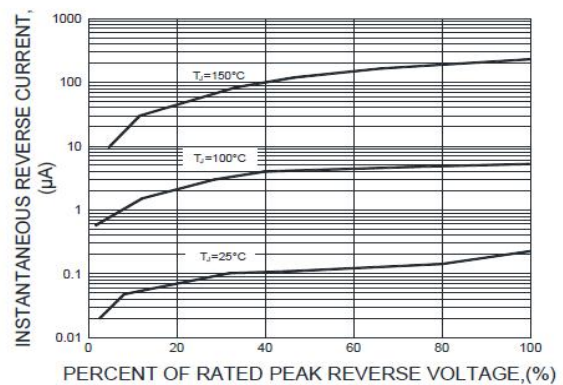
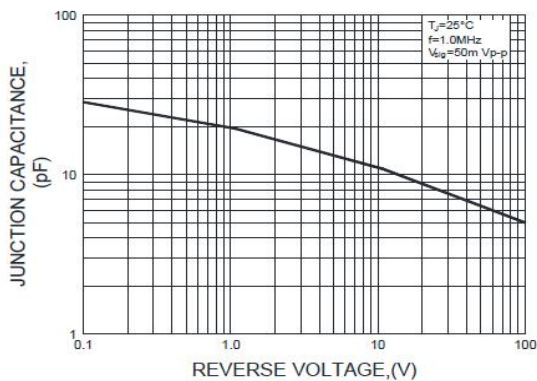


FIG. 5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.