

Kingtronics®

1N4001 THRU 1N4007

GENERAL PURPOSE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts **CURRENT** 1.0 Ampere

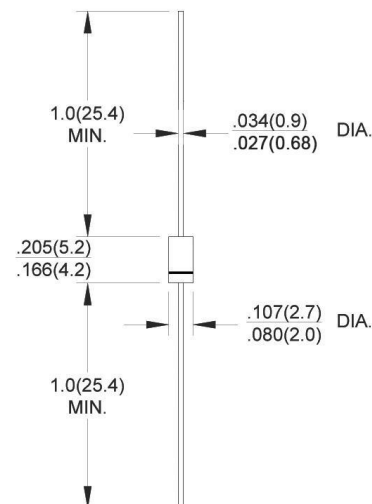
FEATURES

- 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
- Weight:** 0.012ounce, 0.33 grams

DO-41



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%

PARAMETER	SYMBOL	1N	1N	1N	1N	1N	1N	1N	UNIT
		4001	4002	4003	4004	4005	4006	4007	
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 _A =75°C	I _(AV)	1.0							Amps
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	1.1							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	I _R	5.0							uA
		50							
Typical Junction Capacitance (NOTE 1)	C _J	30							pF
Typical Thermal Resistance (NOTE 2)	R _{θJA}	15							°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

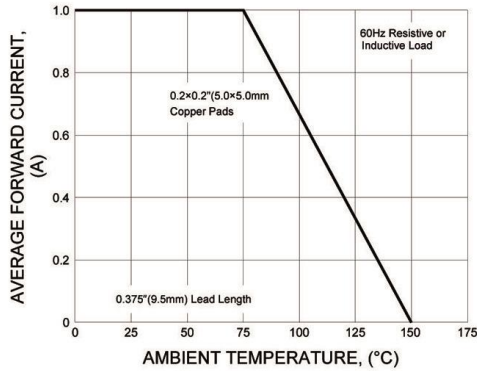


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

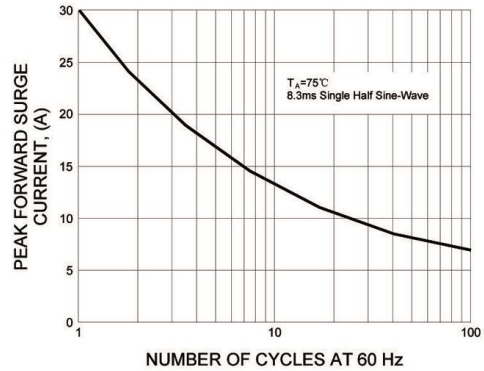


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

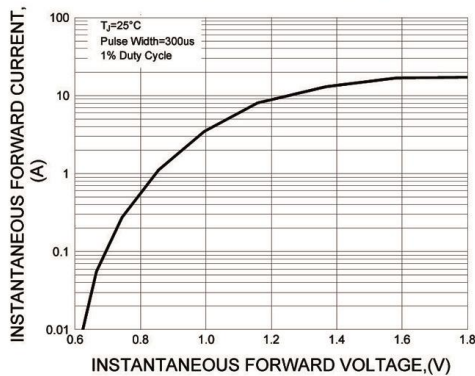


FIG.4-TYPICAL REVERSE CHARACTERISTICS

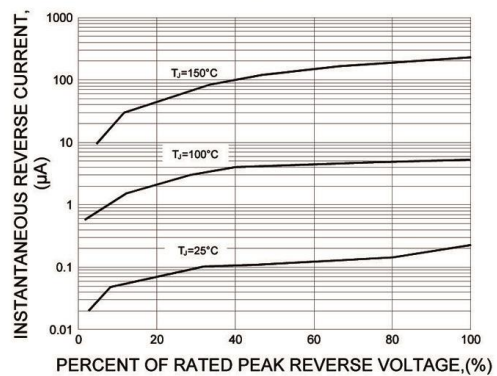
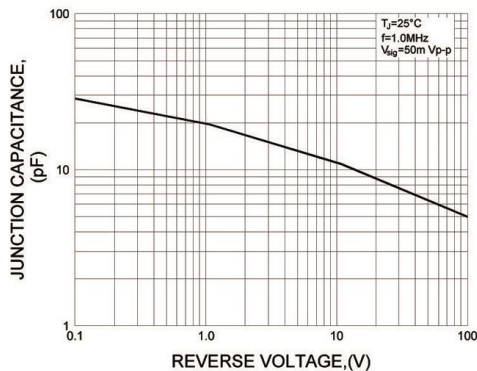


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.

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