DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

10A05 THRU 10A10

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER

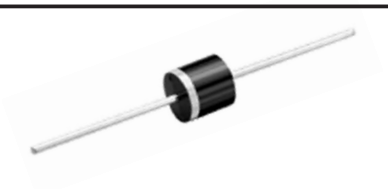
VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 10 Amperes*

FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rated flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 2.08 gram approx.



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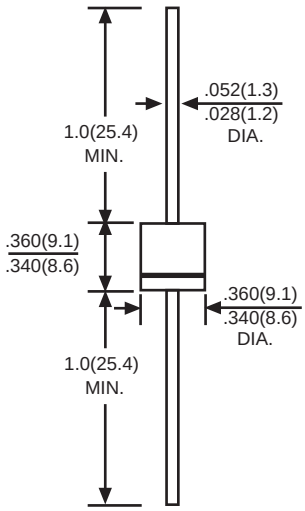


Dimensions in inches and (millimeters)

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%.

	SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Recurrent 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 = 60°C	I_O	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400							Amps
Maximum Instantaneous Forward Voltage at 10 A DC	V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T_A=25°C	I_R	10							μAmps
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T_A=100°C		500							
Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at T_L = 75°C		50							
Typical Junction Capacitance (Note 1)	C_J	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10							°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°C

Note 1: Measured at 1 MHz and applied reverse voltage of 4.0 volts.
Note 2: Typical thermal resistance from junction to ambient.

RATING AND CHARACTERISTIC CURVES (10A05 THRU 10A10)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

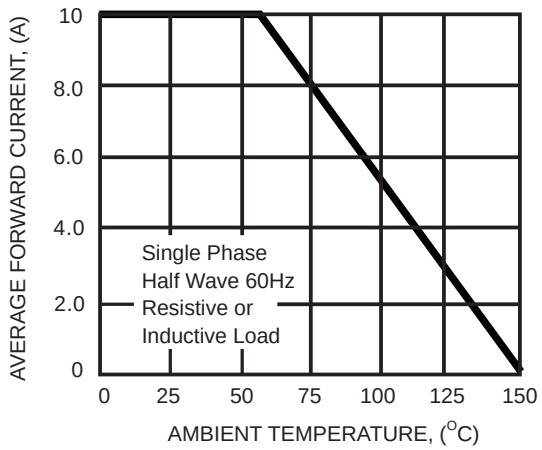


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

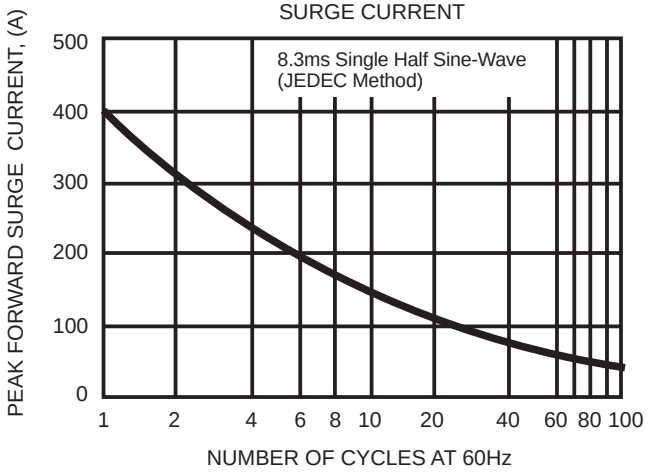


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

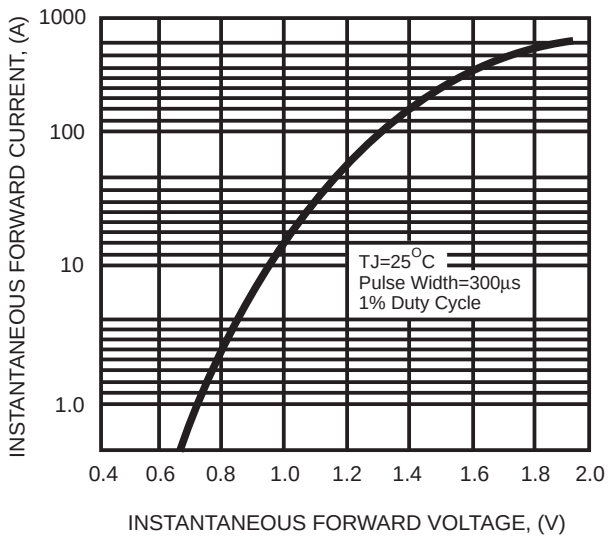


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

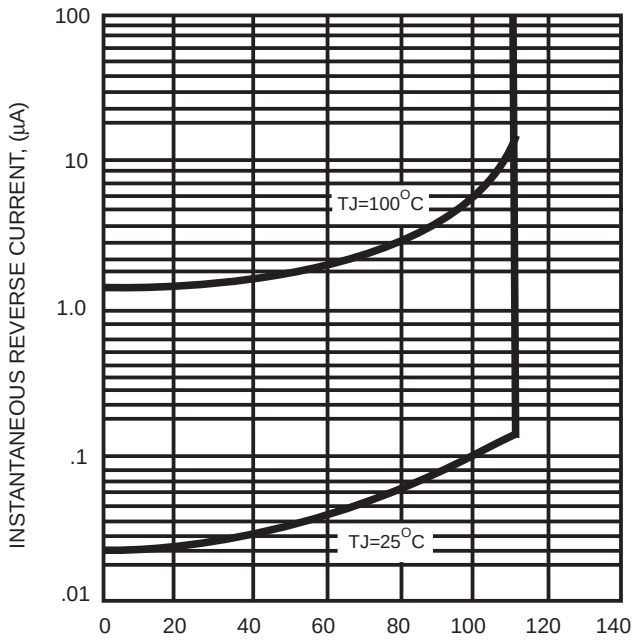
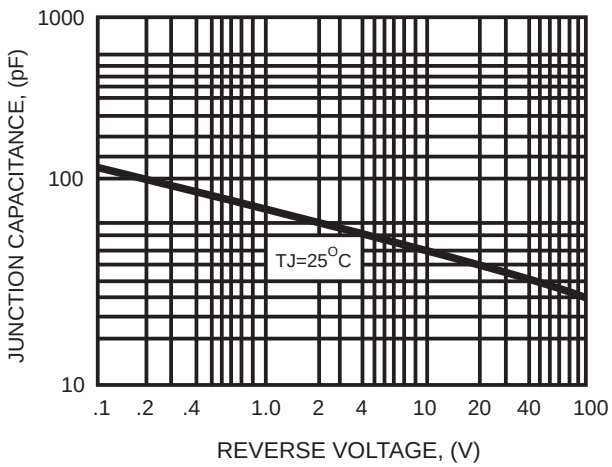


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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