



MASTER INSTRUMENT CORPORATION

General Purpose Rectifiers 10A05 THRU 10A10

VOLTAGE RANGE 50 to 1000 Volts
Forward Current 10 Amperes

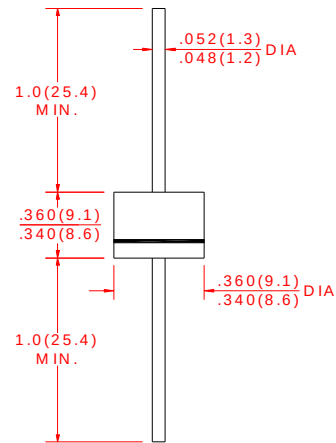
FEATURES

- Low cost construction
- Low forward voltage drop.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed:
250 °C/10 second, at terminals

MECHANICAL DATA

- Case: transfer molded plastic
- Polarity: Indicated by cathode band
- Mounting position: Any
- Weight: 0.07ounces, 2.0 grams

R - 6



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%.

		SYMBOLS	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
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 @T _L =75 °C		I _(AV)	10.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	400							Amps
Maximum Instantaneous Forward Voltage Drop per bridge element at 10A		V _F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _J =25°C	I _R	10							μA
	T _J =100°C		100							
Typical Junction Capacitance (Note 2)		C _J	200							pF
Operating and Storage Temperature Range		T _J	-65 to +175							°C
Storage Temperature Range		T _{STG}	-65 to +175							°C

NOTES:

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



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RATINGS AND CHARACTERISTIC CURVES 10A05 THRU 10A10

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

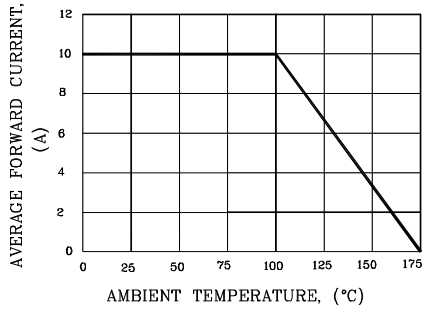


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

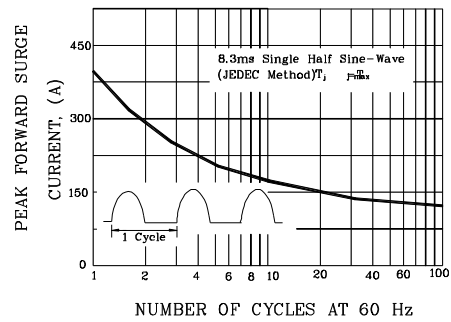


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

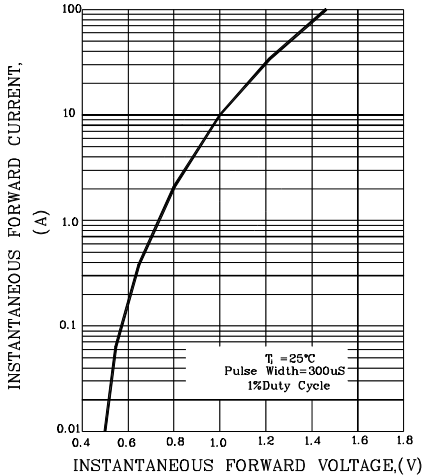


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

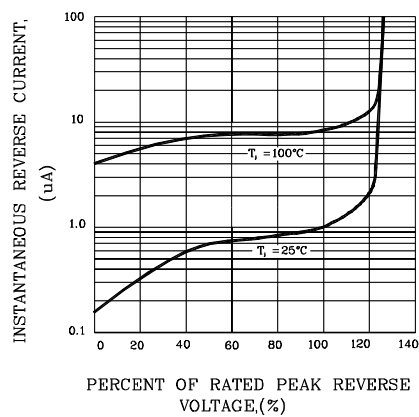


FIG.5-TYPICAL JUNCTION CAPACITANCE

