



THE DATASHEET OF 10A1



SILICON RECTIFIER

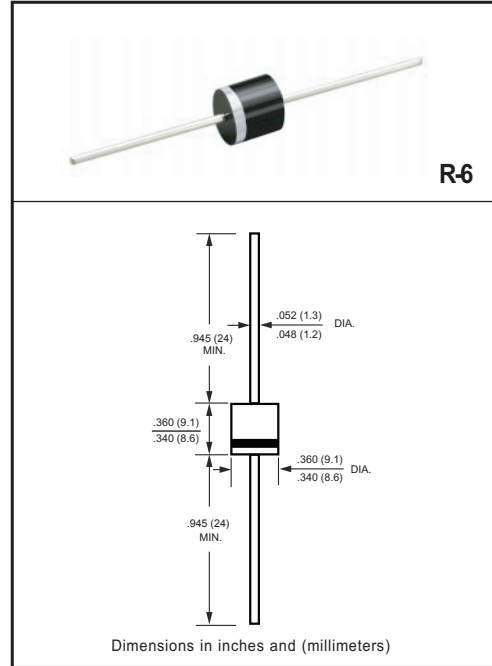
VOLTAGE RANGE 1000 Volts CURRENT 10 Amperes

FEATURES

- * High surge current capability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * Low lost

MECHANICAL DATA

- * Case: Molded plastic black body
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}				1000				Volts
Maximum RMS Voltage	V _{RMS}				700				Volts
Maximum DC Blocking Voltage	V _{DC}				1000				Volts
Maximum Average Forward Rectified Current at TA = 50°C	I _O				10				Amps
Peak Forward Surge Current I _{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}				400				Amps
Typical Current Squared Time	i ² T				664				A ² S
Typical Thermal Resistance (Note 3)	R _{θJA}				20				°C/W
Typical Thermal Resistance (Note 4)	R _{θJL}				4				°C/W
Typical Thermal Resistance (Note 5)	R _{θJC}				6				°C/W
Typical Junction Capacitance (Note 1)	C _J				135				pF
Operating and Storage Temperature Range	T _J , T _{STG}				-55 to + 150				°C

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Forward Voltage at 10A DC	V _F				1.1				Volts
Maximum DC Average Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C				5				uAmps
	@T _A = 150°C				2				mAmps
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) Lead Length at T _L =75°C	I _R				50				uAmps

- NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC
 2. " ROHS compliant".
 3. Thermal Resistance: At 9.5mm lead lengths,PCB mounted.
 4. Thermal Resistance Junction to lead
 5. Thermal Resistance Junction to dice

RATING AND CHARACTERISTICS CURVES (10A05 THRU 10A10)

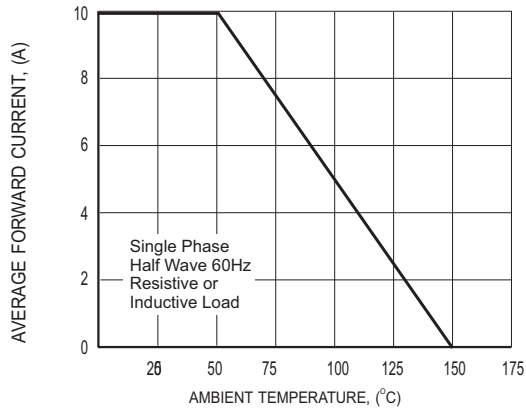


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

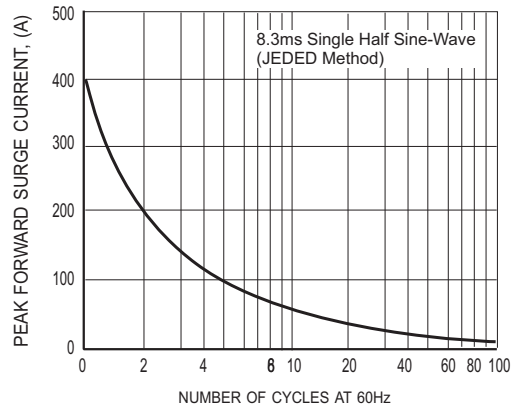


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

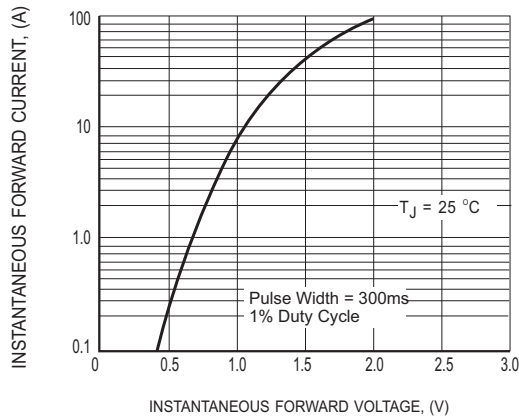


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

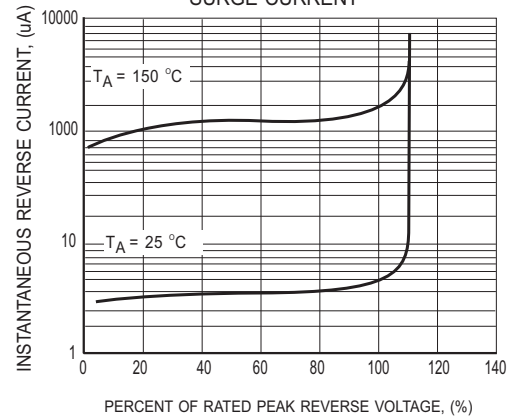


FIG.4 MAXIMUM REVERSE CHARACTERISTICS

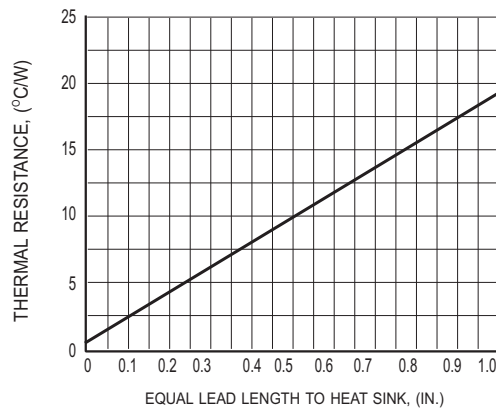


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

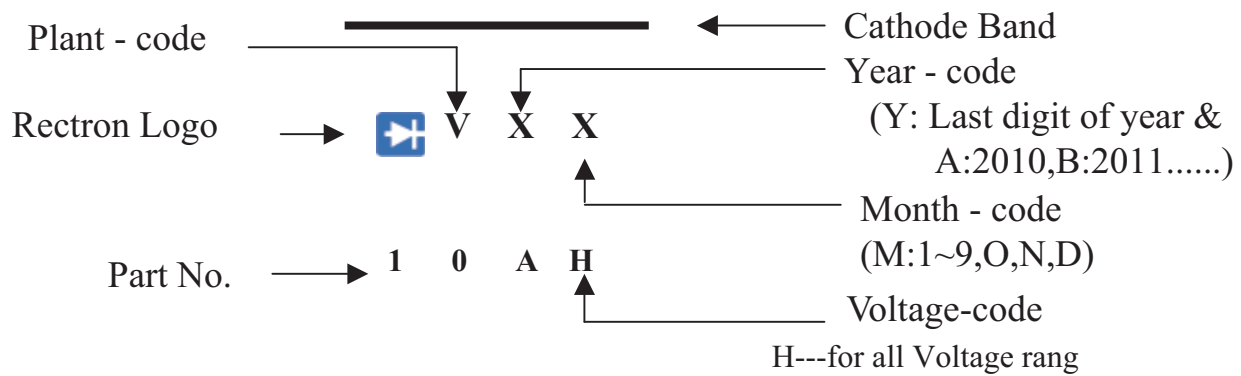


Attachment information about 10AX

1. Internal Circuit



2. Marking on the body



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-6/R-7	-B	200	300*73*40	347*320*271	4,800	12.93/14.57

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-6/R-7	-T	800	800	9.5	52	330	355*350*335	3,200	9.72/9.91

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
R-6/R-7	-F	300	9.5	52	255*73*100	400*268*225	3,000	8.5/8.7

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