RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

10AH

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-O
* 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%.

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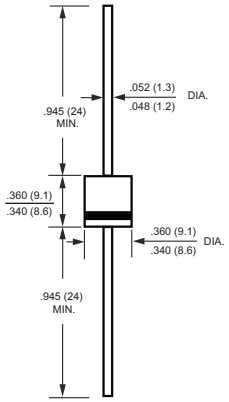

Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	10AH	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 IFM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400	Amps
Typical Current Squared Time	I^2T	664	A^2S
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20	°C/W
Typical Thermal Resistance (Note 4)	$R_{\theta JL}$	4	°C/W
Typical Thermal Resistance (Note 5)	$R_{\theta JC}$	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	10AH	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	I_R	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			50	uAmps

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

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RATING AND CHARACTERISTICS CURVES (10AH)

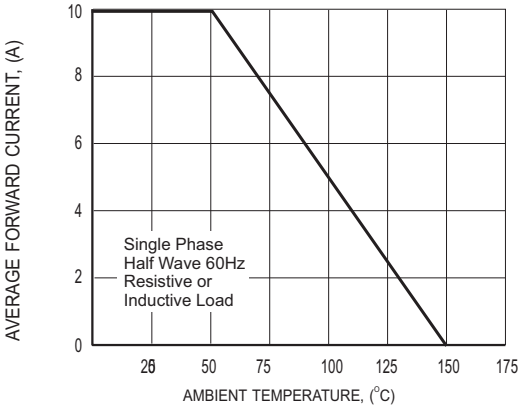

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

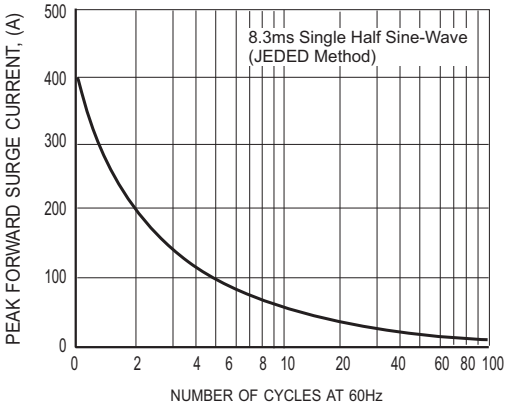

FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

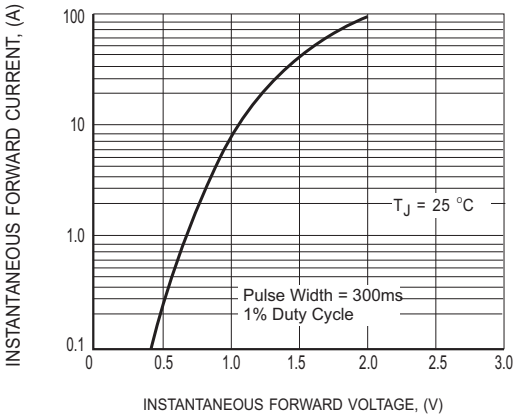

FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

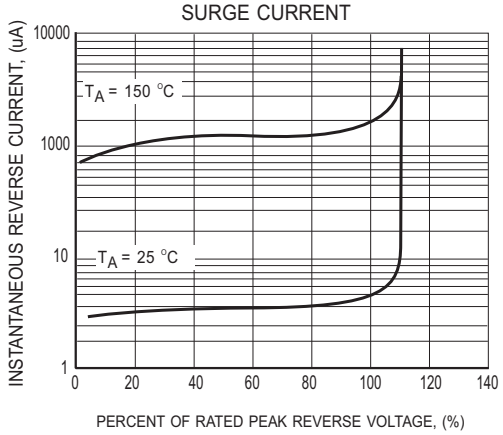

FIG.4 MAXIMUM REVERSE CHARACTERISTICS

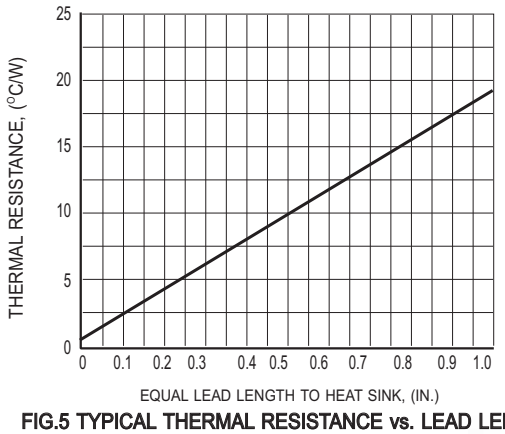

FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

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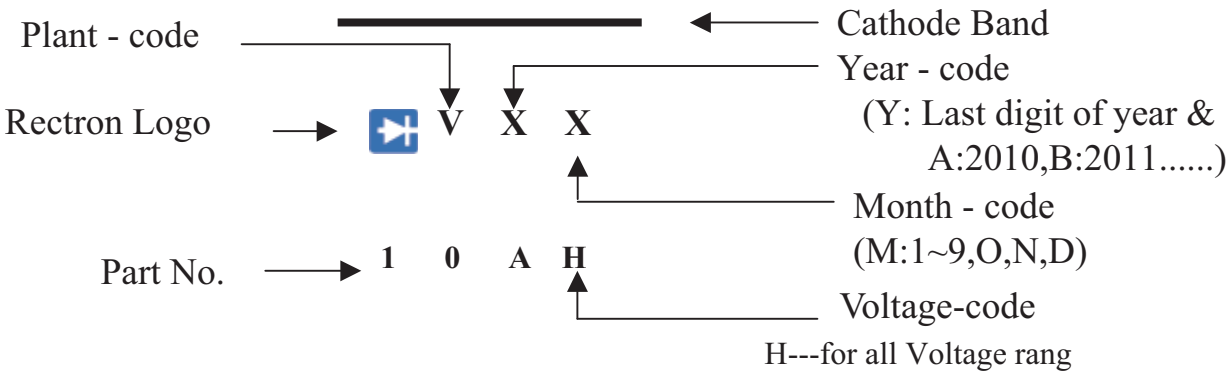
Attachment information about 10AH

1. Internal Circuit

2. Marking on the body



AXIAL LEAD TAPING SPECIFICATIONS FOR RECTIFIERS

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below.

COMPNENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B		CUMULATIVE PITCH TOLERANCE
	±0.5mm (.020")	±0.5mm (.020")	±1.5mm (.059")	
T-1	5.0mm	26.0mm		2.0mm/20pitch
R-1	5.0mm	26.0mm		2.0mm/20pitch
R-1	5.0mm		52.4mm	2.0mm/20pitch
A-405	5.0mm	26.0mm		2.0mm/20pitch
A-405	5.0mm		52.4mm	2.0mm/20pitch
DO-41	5.0mm	26.0mm		2.0mm/20pitch
DO-41	5.0mm		52.4mm	2.0mm/10pitch
DO-15	5.0mm		52.4mm	2.0mm/10pitch
R-3	5.0mm		52.4mm	2.0mm/10pitch
DO-201AD	10.0mm		52.4mm	2.0mm/10pitch
R-6	10.0mm		52.4mm	2.0mm/10pitch
1.5KE	10.0mm		52.4mm	2.0mm/10pitch

Note: -E for 26mm inner tape pitch
-F & -T for 52mm inner tape pitch

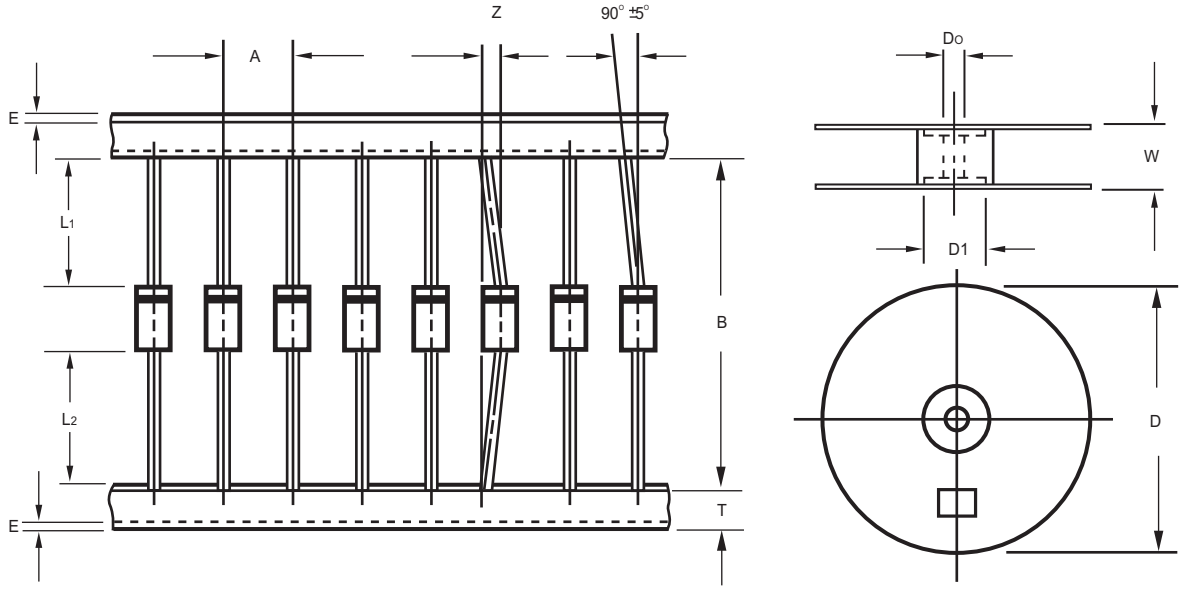


Fig.: Configuration of AXIAL LEAD TAPING

ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (inch)
Component alignment	Z	1.2 Max.	0.048 Max.
Tape width	T	6.0± 0.4	0.236± 0.016
Exposed adhesive	E	0.8 Max.	0.032 Max.
Body eccentricity	IL1-L2I	1.0 Max.	0.040 Max.
Reel outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7± 0.3	3.375± 0.012
Feed hole diameter	Do	30.5± 0.4	1.201± 0.016
Reel width	W	79.0± 1.0	3.110± 0.040

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Notes : 1.Each component lead shall be sandwiched between tapes for a minimum of 3.2mm (0.126").
2.The reel width "W" for 26mm taping is 50.0±1.0mm (1.97" ± 0.040").

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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