

T10TM SERIES AI-RANGE

Transient Voltage Suppressor ■ Glass Passivated Junction
Voltage Range 68 – 350 Volts ■ 100A Peak Pulse Current

APPLICATIONS

- The Semitron series protection devices incorporate state of the art technology developed at Semitron. The devices offer nanosecond voltage clamping efficiency, high current diverting capability and low capacitance. These devices are purpose designed for telecommunication and data communication applications where protection from LIGHTNING, ESD, NEMP or POWERLINE INCURSION is required. Line card applications.

MECHANICAL DATA

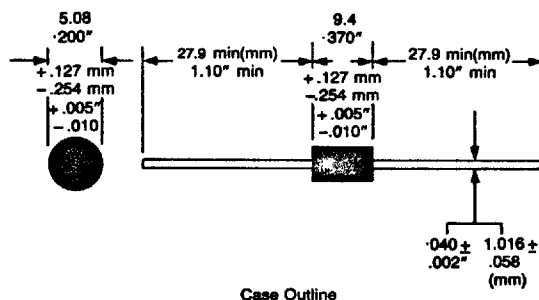
- Case: moulded plastic over glass passivated junction
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Bipolar
- Mounting position: any
- Weight: 0.045 ounce, 1.2 grams

FEATURES

- Glass passivated junction
- Nanosecond voltage clamping efficiency
- High current diverting capability
- Low capacitance
- High holding current
- Operating and storage temperature -65°C to +175°C

The devices are designed to meet:

10/1000	100A		
10/700µs 1.5kV and 5kV	8/20µs	150A	
10/700µs 2kV			
0.5/700µs 1.5kV	10/1000µs	100A	



Case Outline

Quick Reference Data at 25°C

	T10-A1068	T10-A1140	T10-A1180	T10-A1230	T10-A1350
Off-State Voltage (VD)	55V	113V	146V	200V	265V
*Breakover Voltage (VBO)	74V	164V	198V	252V	350V
Holding Current (IH) min.	260mA	260mA	260mA	260mA	260mA
Peak Pulse Current (10/1000µs)	100A	100A	100A	100A	100A
Peak Pulse Voltage (10/700µs)	5kV	5kV	5kV	5kV	5kV
Capacitance 1MHz 0V bias	<150pF	<150pF	<200pF	<200pF	<200pF

*Characteristics apply line to ground.

Breakdown Voltage.

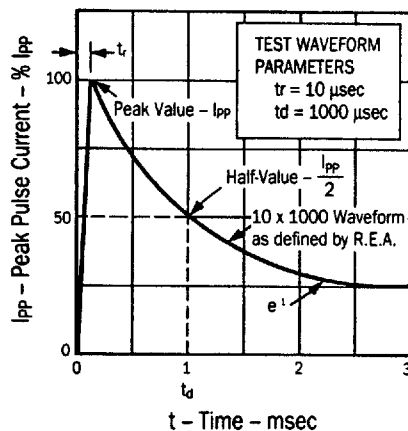


Electrical Data @ 25°C

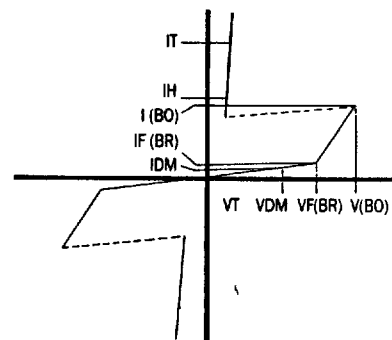
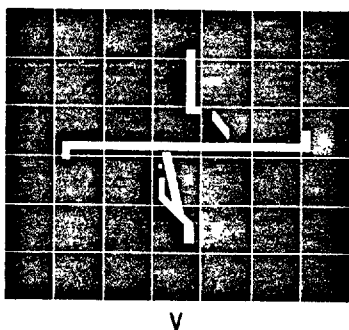
Characteristics	Symbol	T10-A1068	T10-A1140	T10-A1180	T10-A1230	T10-A1350
Off-State Voltage	VD	55V	113V	146V	200V	265V
Off-State Leakage	ID	10µA	10µA	10µA	10µA	10µA
Breakover Voltage	V(BO)	74V	164V	198V	252V	350V
Breakdown Voltage @ IF(BR) = 1mA	VF(BR)	62V	126V	162B	207V	275V
Off State Capacitance	CTOT	<150pF	<150pF	<200pF	<200pF	<200pF
Peak Pulse Current 10/1000µs	ITSM	100A	100A	100A	100A	100A
Peak Pulse Voltage 10/700µs	VTSM	5kV	5kV	5kV	5kV	5kV
On State Voltage @ 2A	VT	3V	3V	3V	3V	3V
Follow on Current	ITRM	10A	10A	10A	10A	10A
Voltage Response	dv/di	5kV/µs	5kV/µs	5kV/µs	5kV/µs	5kV/µs
Breakover Current (Typ)	IBO	200mA	200mA	200mA	200mA	200mA
Ambient Operating Range	TA	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Max. Junction Temp.	Tj	-55°C to +125°C	-55°C to +125°C	-55°C to +125°C	-55°C to +125°C	-55°C to +125°C
AC Discharge (600V, 5 x 1s)	ITRM	20A	20A	20A	20A	20A

Holding Currents min.	mA Suffix	160 - D	240 - H
		100 - A	180 - E
		120 - B	200 - F
		140 - C	220 - G

PULSE WAVEFORM



TYPICAL VOLT AMPERE CHARACTERISTIC



VI Graph Illustrating Symbols and Terms for the Thyristor Diode Surge Protective Device

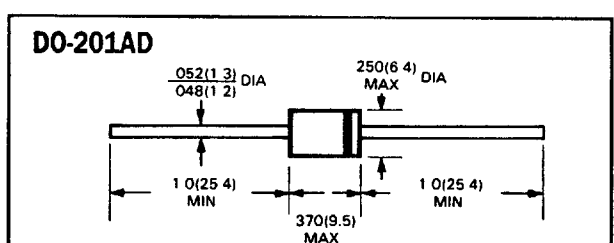
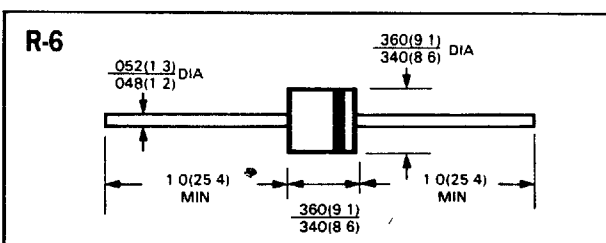
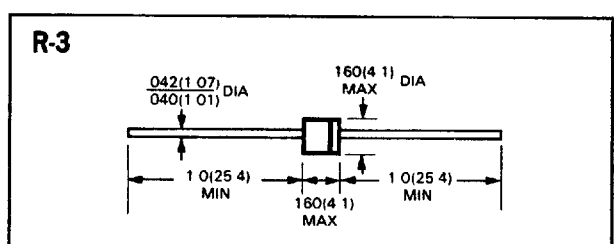
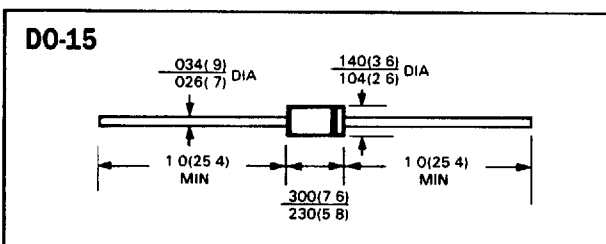
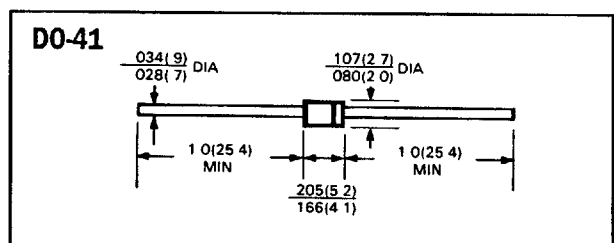
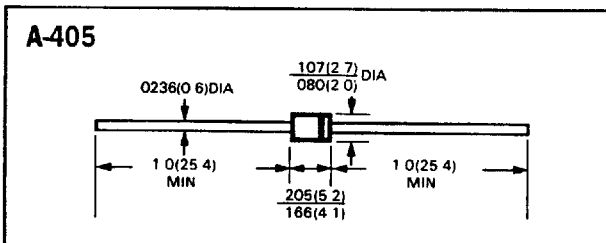
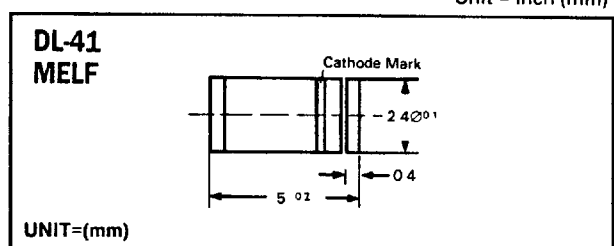
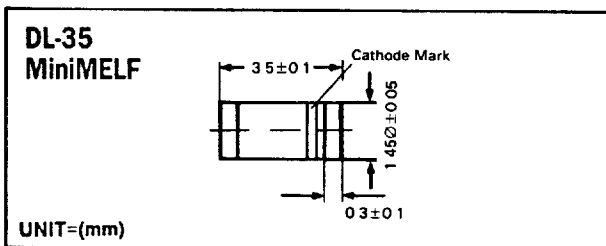
TVS/SURGEPAK™

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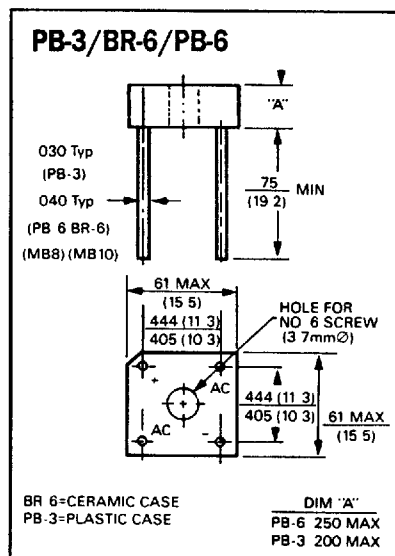
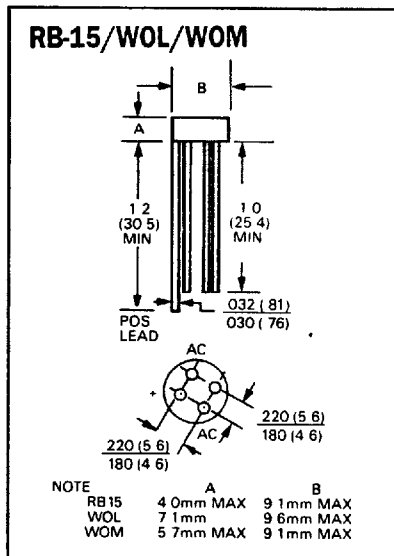
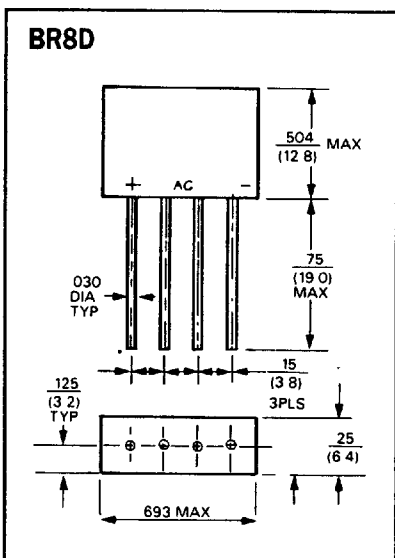
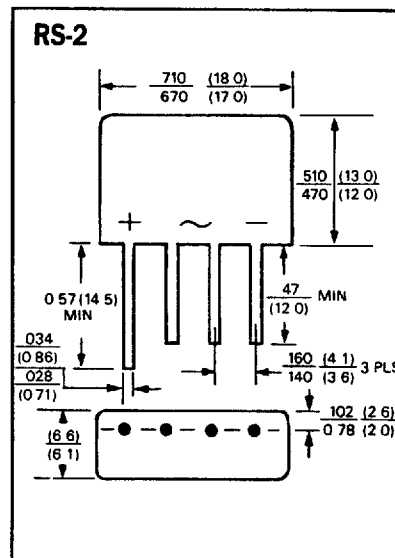
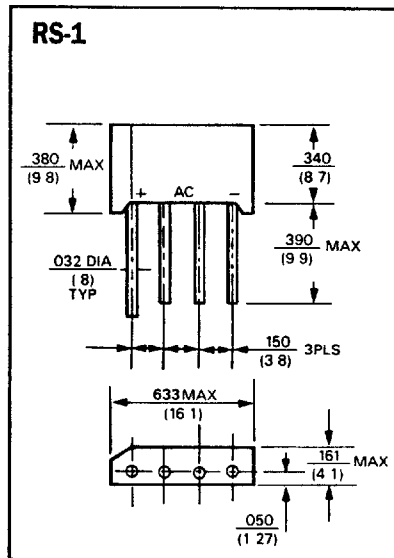
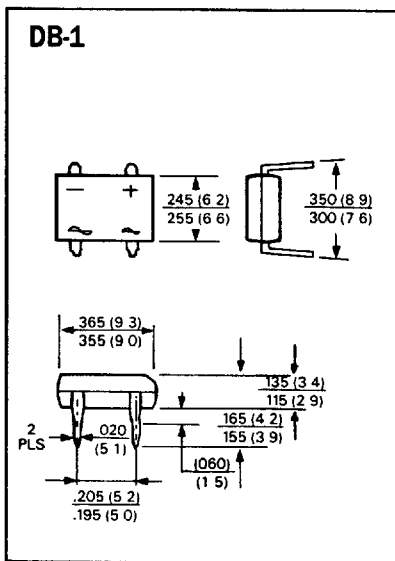
OUTLINE DRAWINGS

Unit = inch (mm)





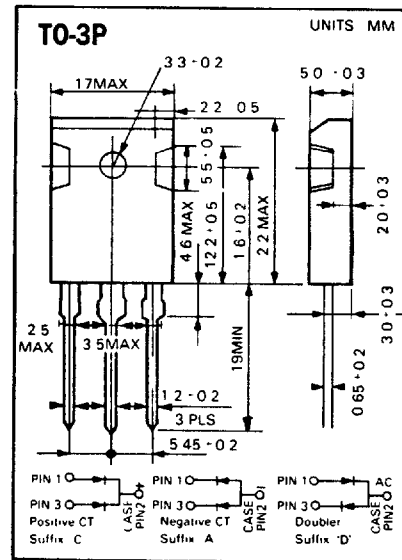
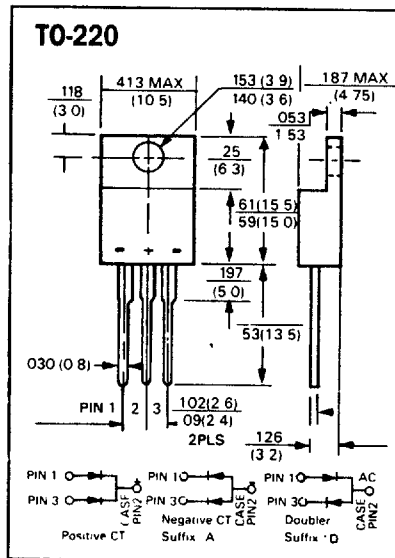
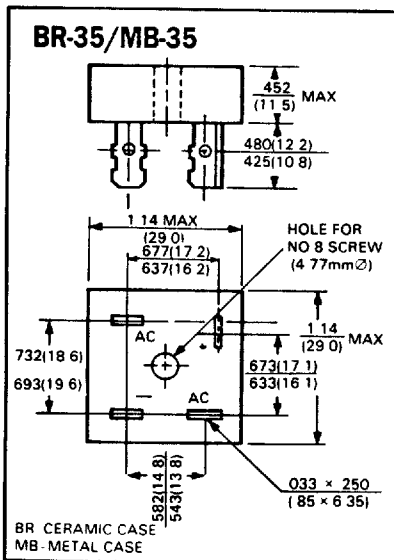
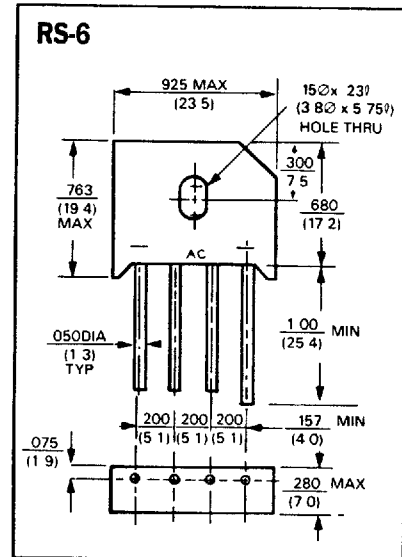
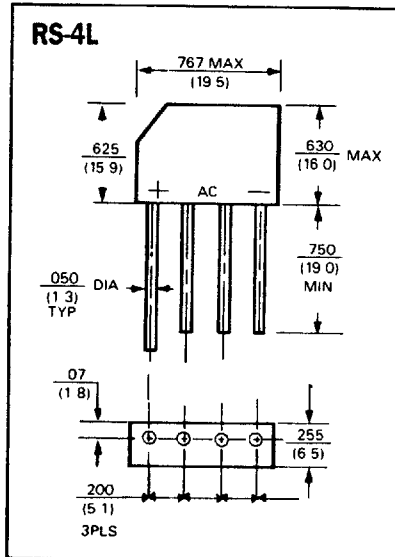
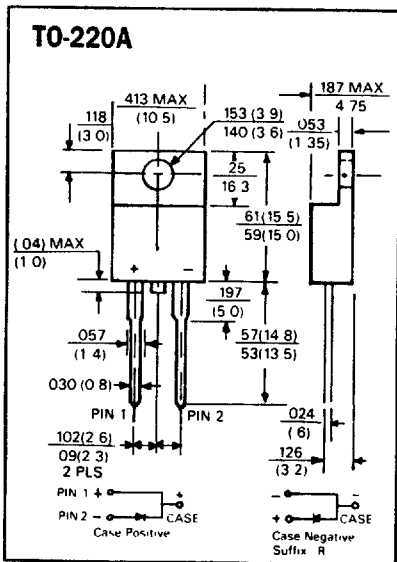
OUTLINE DRAWINGS



RECTIFIER DIODES AND BRIDGE RECTIFIERS

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OUTLINE DRAWINGS



SEMITRON INDUSTRIES LTD

RECTIFIERS

Product Packaging Specifications

PACKAGING OF AXIAL LEAD DIODES, MELF AND MINI-MELF SURFACE MOUNT DEVICES AND TRANSISTORS

REEL PACK

OUTLINE	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA. (m/m)	QTY./REEL (each)
DO-7	5.0	52.4	330	10,000
DO-35	5.0	53	355	10,000
DO-35 (ZENER)	[RADIAL TAPING SEE FIG. 1, 2 & 3]		355	5,000
DL-35 (MINI MELF)	See Pg. 37		250/330	5,000/10,000
DL-41 (MELF)	See Pg. 37		330	5,000
A-405	5.0	52.4	330	5,000
A-500	5.0	52.4	203/254/304	1,000/2,000/3,000
DO-41	5.0	52.4	330	5,000
DO-41 (ZENER)	5.0	53	355	5,000
DO-15	5.0	52.4	330	4,000
R-3	5.0	52.4	330	3,000
DO-201AD	10.0	52.4	330	1,200
R-6	10.0	52.4	330	500
TO-92	[RADIAL TAPING SEE FIG. 4, 5 & 6]		355	2,000
TO-236/SOT-23	[SEE SPECIFICATIONS ON PG.38]		178	3,000

PACKAGING OF AXIAL LEAD DIODES AND LEADED TRANSISTORS

AMMO PACK

OUTLINE	COMPONENT SPACE (mm)	TAPE SPACE (mm)	BOX SIZE (m/m)	QTY./BOX (each)
DO-35 (SW. DIODES)	5.0	53	338/147/77	15,000
DO-35	5.0	53	255/95/85	6,000
DO-35	5.0	26	255/95/51	6,000
A-405	5.0	52.4	255/95/78	3,000
DO-41	5.0	52.4	255/95/78	3,000
DO-41	5.0	26	255/51/95	3,000
DO-41 (ZENER)	5.0	53	255/95/85	3,000
DO-41 (ZENER)	5.0	26	255/95/51	3,000
DO-15	5.0	52.4	255/95/78	2,200
R-3	5.0	52.4	255/95/78	2,000
DO-201AD	10.0	52.4	255/95/78	800
R-6	10.0	52.4	255/95/78	300
TO-92	[RADIAL TAPING, SEE FIG. 4]		340/340/45	4,000

RECTIFIER DIODES AND
BRIDGE RECTIFIERS

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