



# SR1045 THRU SR10150

Reverse Voltage - 45 to 150 Volts Forward Current - 10.0 Ampere

## SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case** : JEDEC DO-201AD Molded plastic body

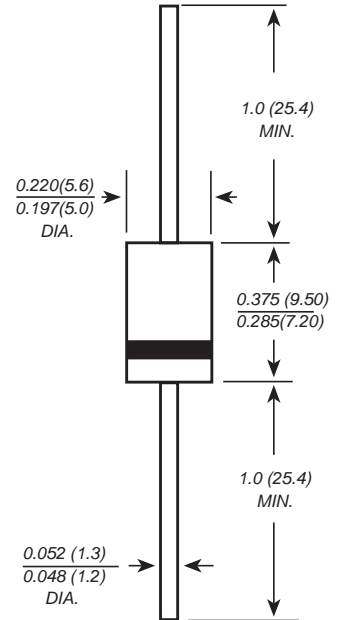
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.04 ounce, 1.10 grams

DO-201AD



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 current derate by 20%.

Parameter	SYMBOLS	MDD SR1045	MDD SR1050	MDD SR1060	MDD SR1080	MDD SR10100	MDD SR10150	UNITS
Marking Code								
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	50	60	80	100	150	V
Maximum RMS voltage	$V_{RMS}$	32	35	42	56	70	105	V
Maximum DC blocking voltage	$V_{DC}$	45	50	60	80	100	150	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig. 1)	$I_{(AV)}$	10.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	275.0						A
Maximum instantaneous forward voltage at 10.0A	$V_F$	0.45	0.48	0.55	0.75	0.8		V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	0.3						mA
$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$		15.0						
Typical junction capacitance (NOTE 1)	$C_J$	80						pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	15.0						°C/W
Operating junction and storage	$T_J$	-50 to +150						°C
Storage temperature range	$T_{STG}$	-50 to +150						°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



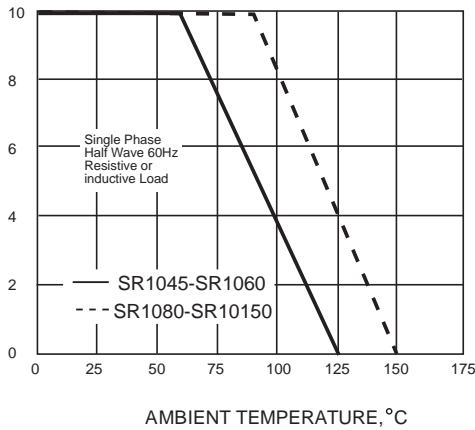
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## Ratings And Characteristic Curves

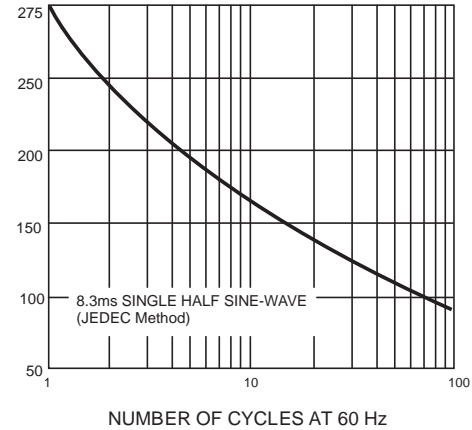
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



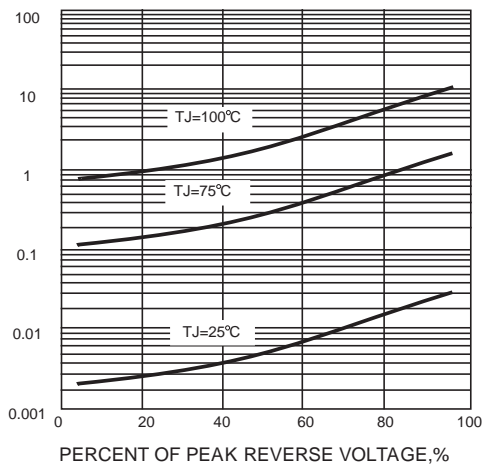
PEAK FORWARD SURGE CURRENT, AMPERES

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



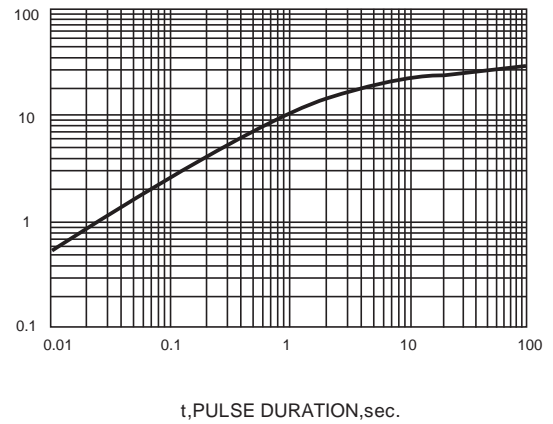
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 3-TYPICAL REVERSE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 4-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.

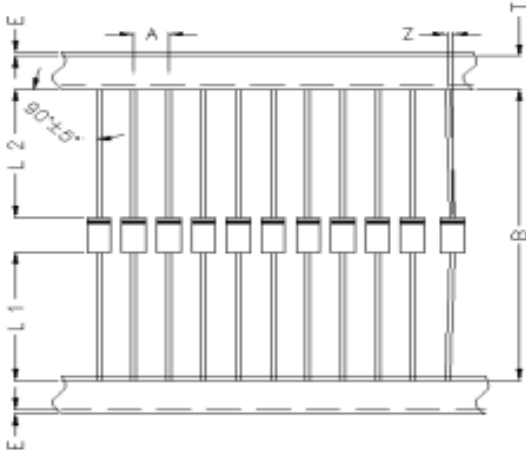


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## Package Information

### Taping Specifications



Item	Symbol	Specifications(mm)
Component Pitch	A	10.0±0.5
Inner Tape Pitch	B	52.4±1.5
Component alignment	Z	1.2 Max
Tape width	T	6.0±0.5
Exposed adhesive	E	0.8 Max
Body eccentricity	L1-L2	1.0 Max

### Ammunition Package Specifications

Package	Inner Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
DO - 201AD	255*74*145	1000	410*275*340	10000

### Bulk Package Specifications

Package	Inner Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
DO - 201AD	198*86*21	200	460*220*250	10000