

GENERAL PURPOSE SILICON RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MechanicalData

Case : JEDEC DO-201AD Molded plastic body

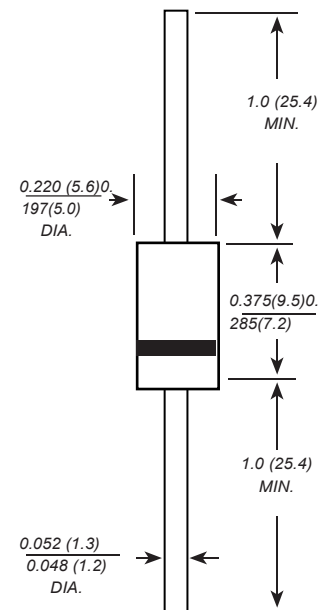
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.04 ounce, 1.10 grams

DO-201AD **RoHS COMPLIANT**



Dimensions in inches and (millimeters)

MaximumRatingsAndElectricalCharacteristics

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	1N 5400	1N 5401	1N 5402	1N 5403	1N 5404	1N 5405	1N 5406	1N 5407	1N 5408	UNITS
Marking Code		RCD 1N 5400	RCD 1N 5401	RCD 1N 5402	RCD 1N 5403	RCD 1N 5404	RCD 1N 5405	RCD 1N 5406	RCD 1N 5407	RCD 1N 5408	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	3.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0									A
Maximum instantaneous forward voltage at 3.0A	V_F	1.2									V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 100.0									μA
Typical junction capacitance (NOTE 1)	C_J	30.0									pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	20.0									$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150									$^\circ\text{C}$

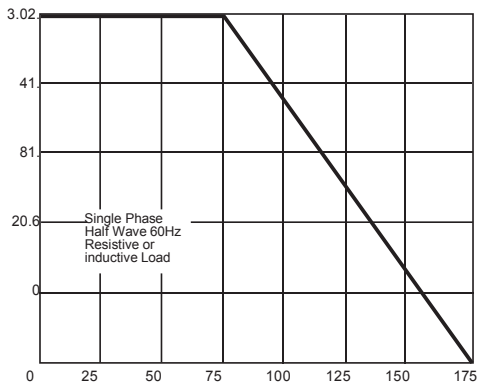
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

RatingsAndCharacteristicCurves

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

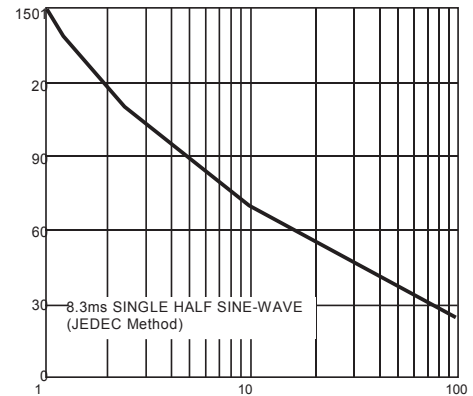
FIG. 1- FORWARD CURRENT DERATING CURVE



AMBIENT TEMPERATURE, °C

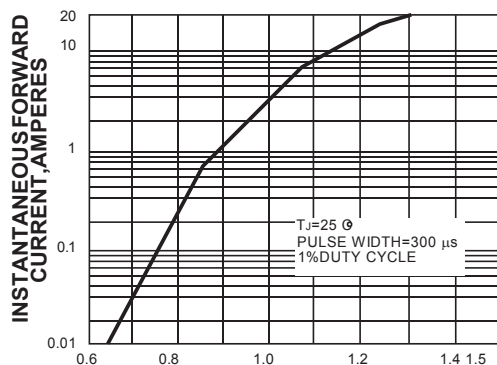
PEAK FORWARD SURGE CURRENT,
AMPERES

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



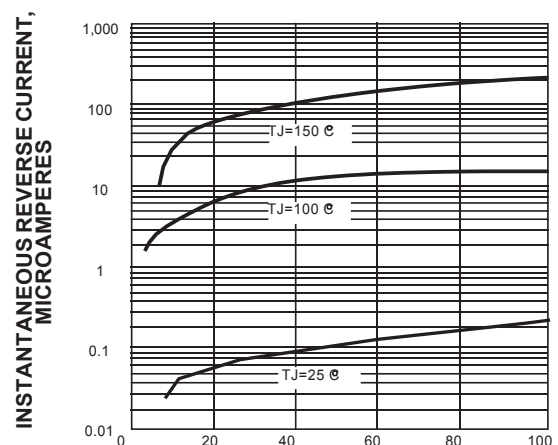
NUMBER OF CYCLES AT 60 Hz

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



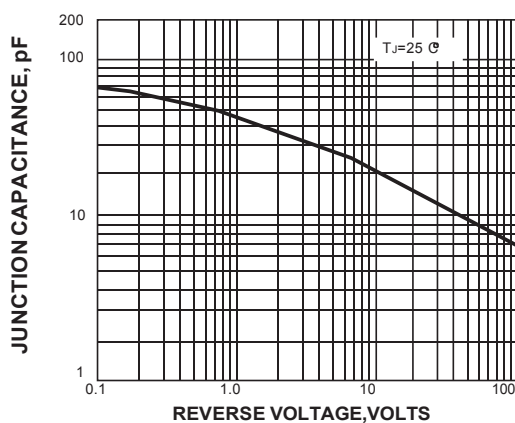
INSTANTANEOUS FORWARD VOLTAGE,
VOLTS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE, %

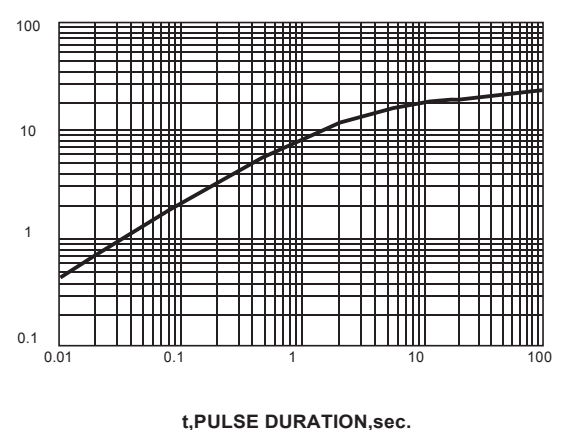
FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS

TRANSIENT THERMAL IMPEDANCE,
C/W

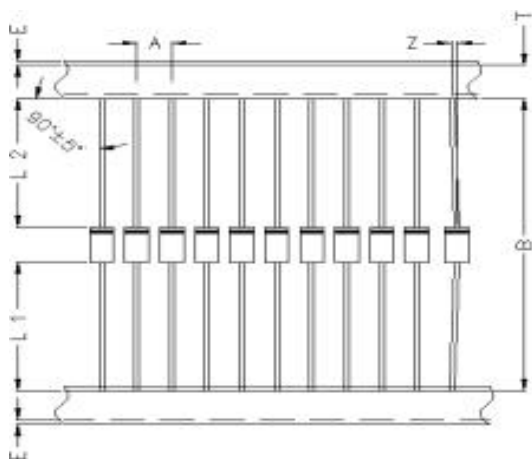
FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t, PULSE DURATION, sec.

PackageInformation

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

AmmunitionPackageSpecifications

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

BulkPackageSpecifications

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