

3A Silicon Rectifiers

PRODUCT SUMMARY

Voltage ratings available from 50 Volts to 1000 Volts

FEATURES

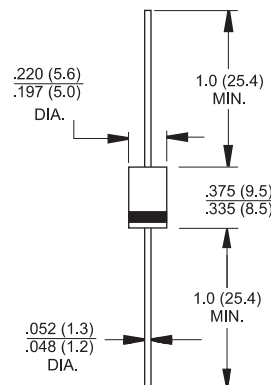
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, matte tin plating
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed:
260°C for 10 seconds with 0.375" (9.5mm)
lead lengths at 5 lbs. (2.3kg) tension

Weight: 1.2 grams

DO-201AD



 **Pb-free; RoHS-compliant**

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

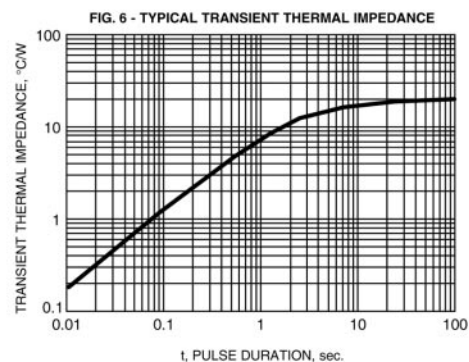
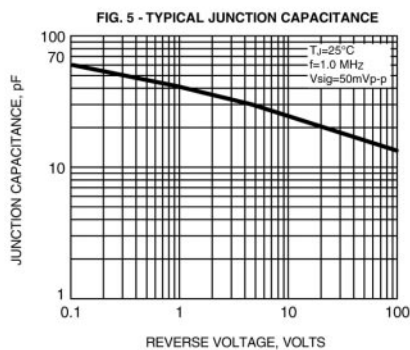
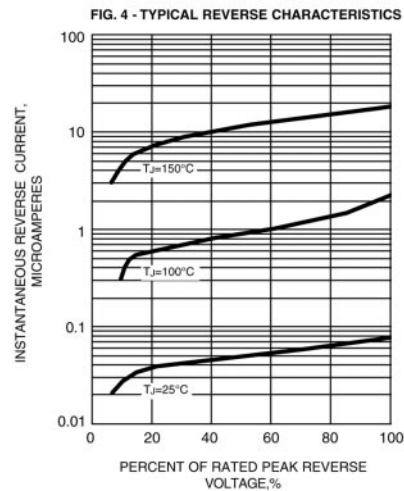
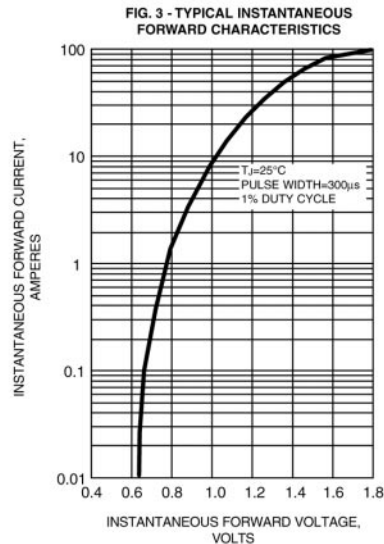
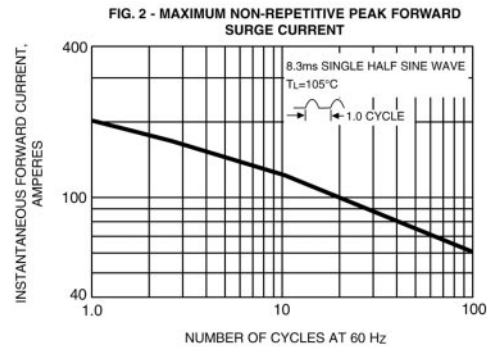
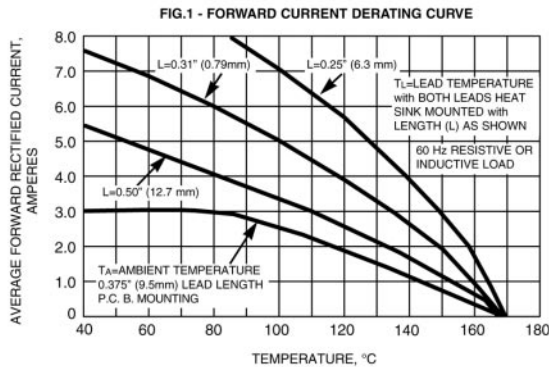
For capacitive load, derate current by 20%

Parameter	Symbol	1N 5400	1N 5401	1N 5402	1N 5404	1N 5406	1N 5407	1N 5408	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	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, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							A
Maximum instantaneous forward voltage at 3.0A	V_F	1.2							V
Maximum DC reverse current at $T_A = 25^\circ\text{C}$ at rated DC blocking voltage at $T_A = 100^\circ\text{C}$	I_R	10.0 500							μA μA
Maximum full load reverse current, full cycle average 0.5" (12.5mm) lead length at $T_L = 90^\circ\text{C}$	HT_{IR}	500							μA
Typical junction capacitance (Note 1)	C_j	30							pF
Typical thermal resistance (Note 2)	$R\theta_{JA}$	20							$^\circ\text{C/W}$
Operating temperature range	T_J	-55 to +125							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

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

2. Mounted with 0.375" (9.5mm) lead length on copper pads, size 20mm x 20mm, on P.C.B.

RATINGS AND CHARACTERISTIC CURVES



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