

3A Silicon Rectifiers

PRODUCT SUMMARY

Voltage ratings available from 50 Volts to 1000 Volts

FEATURES

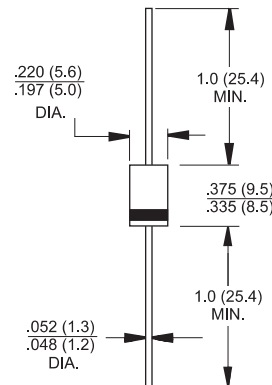
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

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



Dimensions in inches and (millimeters)

 **Pb-free; RoHS-compliant**

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

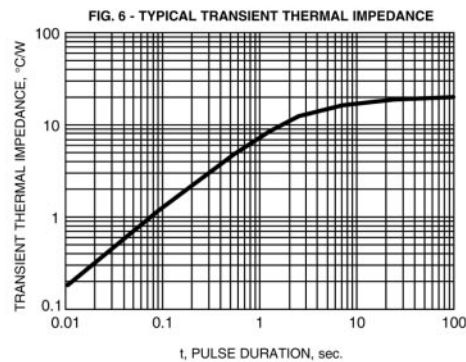
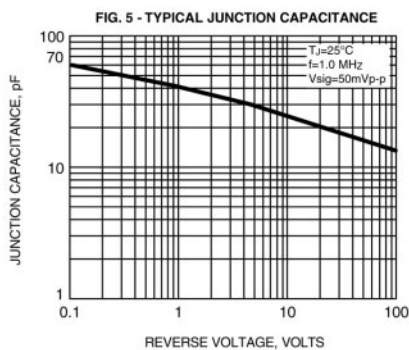
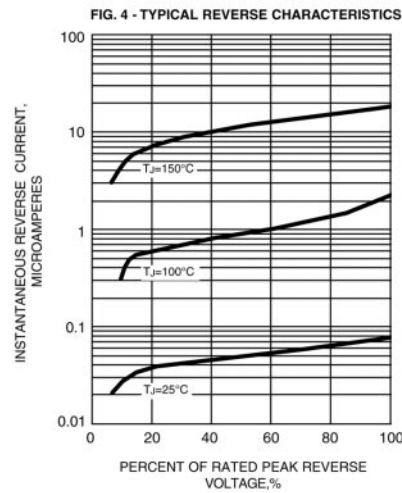
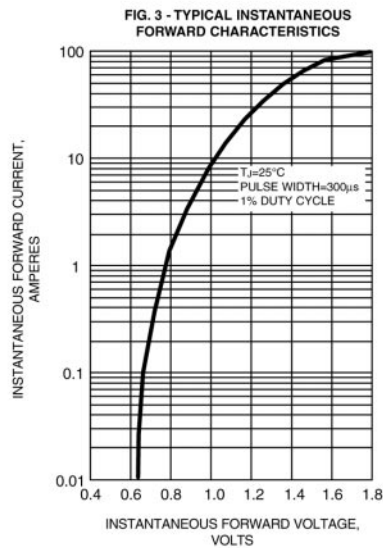
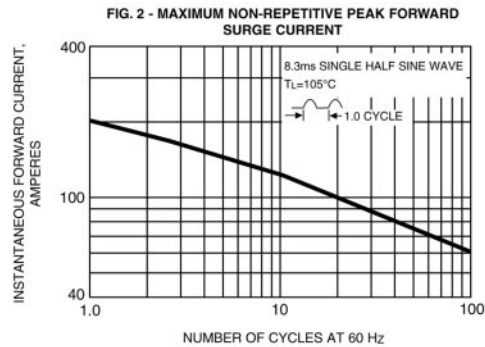
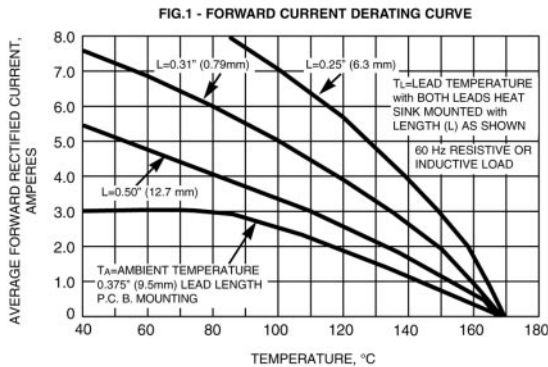
For capacitive load, derate current by 20%

Parameter	Symbol	1N	1N	1N	1N	1N	1N	1N	Units
		5400	5401	5402	5404	5406	5407	5408	
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							$^\circ\text{C}/\text{W}$
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



Information furnished by Silicon Standard Corporation is believed to be accurate and reliable. However, Silicon Standard Corporation makes no guarantee or warranty, expressed or implied, as to the reliability, accuracy, timeliness or completeness of such information and assumes no responsibility for its use, or for infringement of any patent or other intellectual property rights of third parties that may result from its use. Silicon Standard reserves the right to make changes as it deems necessary to any products described herein for any reason, including without limitation enhancement in reliability, functionality or design. No license is granted, whether expressly or by implication, in relation to the use of any products described herein or to the use of any information provided herein, under any patent or other intellectual property rights of Silicon Standard Corporation or any third parties.