

1N5400 thru 1N5408

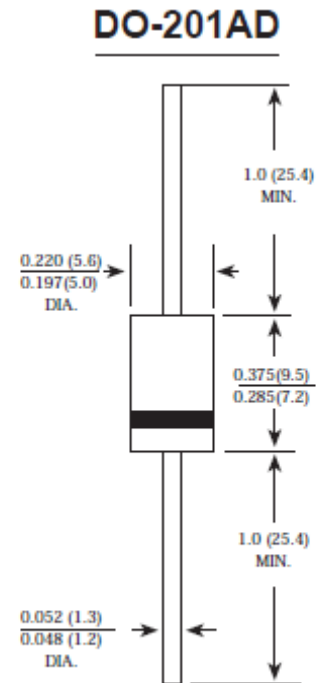
General Purpose Silicon Rectifier

◆ 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
- » Soldering:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

◆ Mechanical Data

- » **Case:** DO-201AD molded plastic body
- » **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- » **Polarity:** Color band denotes cathode end
- » **Mounting Position:** Any
- » **Weight:** 1.10 grams
- » **Standard Package:** Ammopack



Dimensions in inches and (millimeters)

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	3.0 A
V_{RRM}	50 V to 1000 V
I_{FSM} (8.3 ms sine-wave)	150 A
V_F	1.2 V
I_R	10.0 μ A
T_J max.	175 °C

◆ Electrical Characteristic

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	SYMBOL	1N 5400	1N 5401	1N 5402	1N 5403	1N 5404	1N 5405	1N 5406	1N 5407	1N 5408	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	500	600	800	1000	VOLTS
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	350	420	560	700	VOLTS
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	500	600	800	1000	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length at TA=75°C	I (AV)	3.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150									Amps
Maximum instantaneous forward voltage at 3.0A	V _F	1.2									Volts
Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=100°C	I _R	10.0 250.0									uA
Typical junction capacitance (NOTE 1)	C _J	30.0									pF
Typical thermal resistance (NOTE 2)	R _{qJA}	20.0									°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-65 to +175									°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

◆ Rating And Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

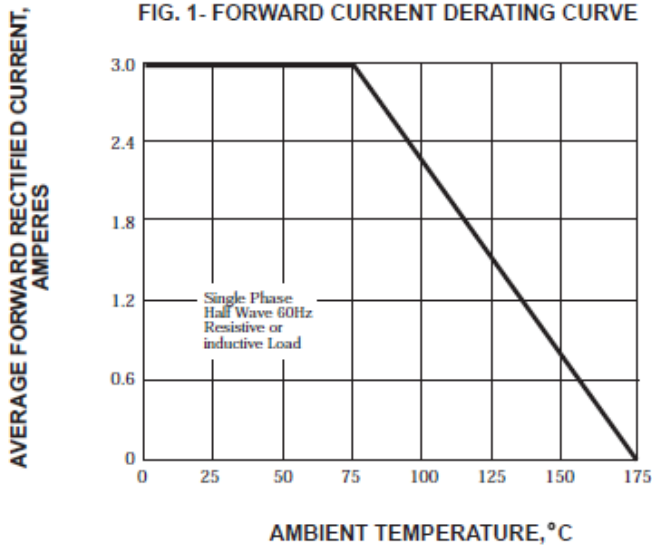


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

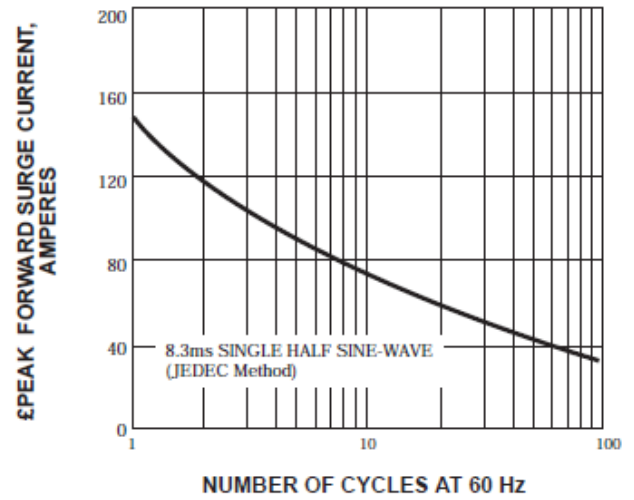


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

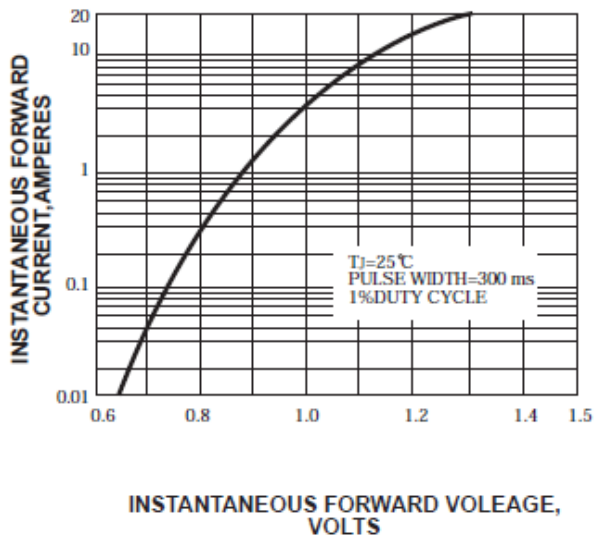


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

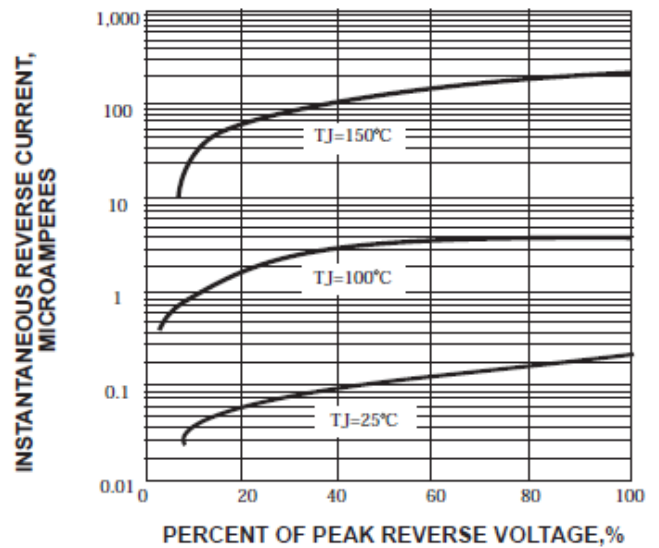


FIG. 5-TYPICAL JUNCTION CAPACITANCE

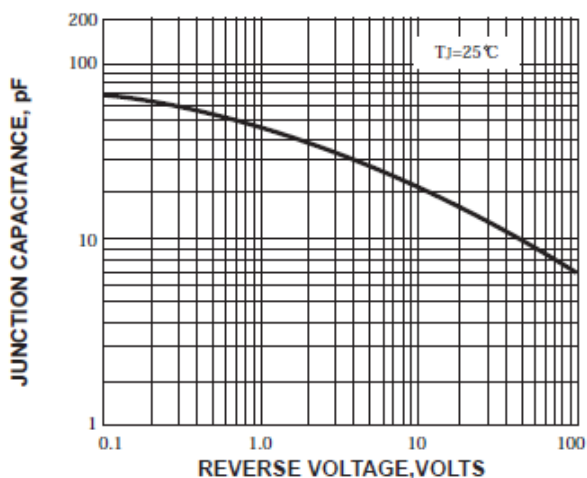


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

