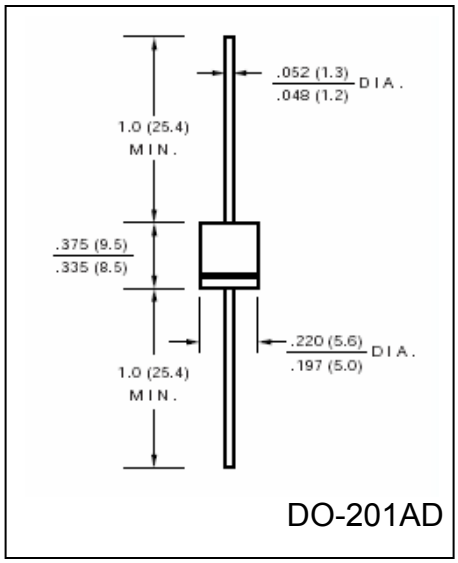
GENERAL PURPOSE RECTIFIER

1N5400 THRU 1N5408

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 3.0 Ampere

FEATURES

- Low reverse leakage
- Low forward voltage
- High forward surge current capacity
- High temperature soldering guaranteed:
  260 /10 seconds, 0.375" (9.5mm) lead length



DO-201AD

MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V – 0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: any
- Weight: 0.042 ounce, 1.19 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length at T_L =105^{O}C	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	200							Amps
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	1.0							Volts
Maximum DC Reverse Current at Rated T_A = 25 ^{O}C	I_R	10.0							µA
DC Blocking Voltage per element T_A = 150 ^{O}C		500							
Maximum Full Load Reverse Current, full cycle Average 0.375" (9.5mm) lead length at T_L = 105 ^{O}C	$I_{R(AV)}$	500							µA
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	40							pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	30							^{O}C/W
Operating Junction Temperature Range	T_J	(-65 to +175)							^{O}C
Storage Temperature Range	T_{STG}	(-65 to +175)							^{O}C

Notes:

1. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted with 0.8" x 0.8" (20mm x 200mm) copper pads

Lead Free
RoHS Compliant

RATINGS AND CHARACTERISTIC CURVES 1N5400 THRU 1N5408

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

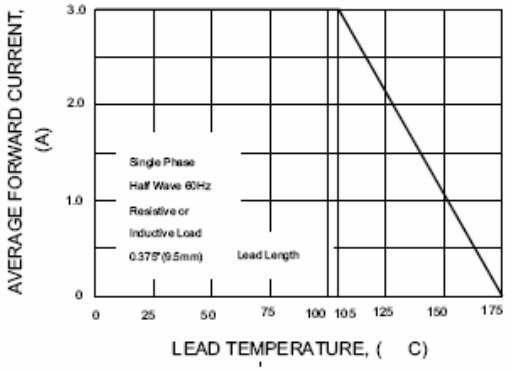


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

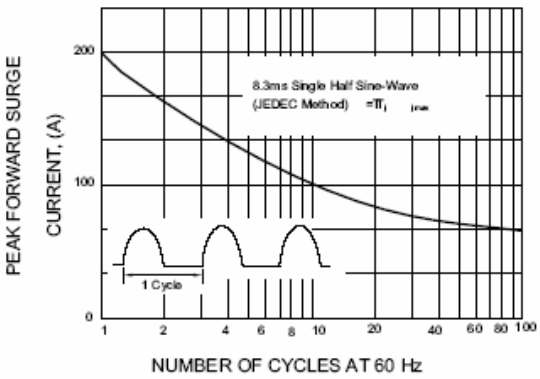


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

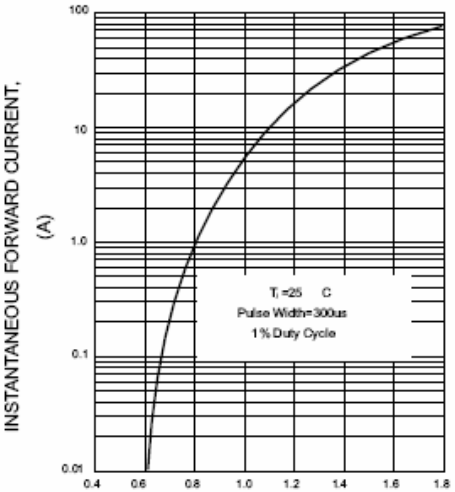


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

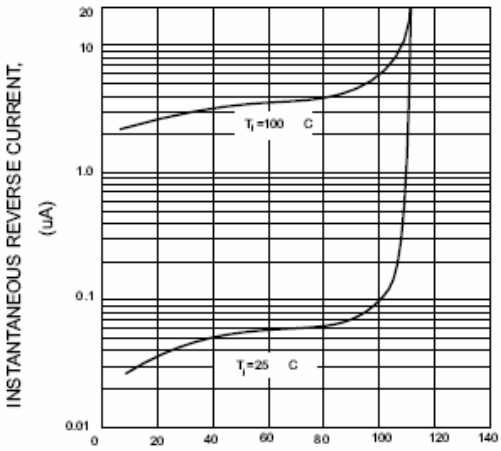


FIG.5-TYPICAL JUNCTION CAPACITANCE