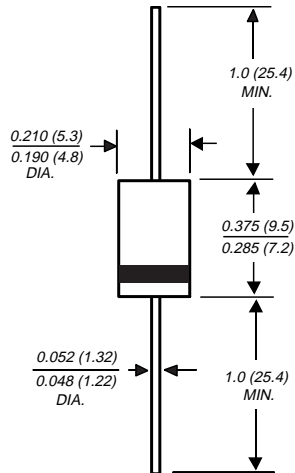


# GI500 THRU GI510

## GENERAL PURPOSE PLASTIC RECTIFIER

*Reverse Voltage - 50 to 1000 Volts      Forward Current - 3.0 Amperes*

DO-201AD



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High surge current capability
- ◆ Typical  $I_R$  less than  $0.1\mu A$
- ◆ Construction utilizes void-free molded plastic technique
- ◆ High current operation of 3.0 Amperes at  $T_A=95^\circ C$  with no thermal runaway
- ◆ High temperature soldering guaranteed:  $250^\circ C/10$  seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



### MECHANICAL DATA

**Case:** JEDEC 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:** 0.04 ounce, 1.1 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ C$  ambient temperature unless otherwise specified.

	SYMBOLS	GI 500	GI 501	GI 502	GI 504	GI 506	GI 508	GI 510	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=95^\circ C$	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0							Amps
Maximum instantaneous forward voltage $T_J=25^\circ C$ at 9.4A $T_J=175^\circ C$	$V_F$	1.1 1.0							Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=100^\circ C$	$I_R$	5.0 50.0							$\mu A$
Typical junction capacitance (NOTE 1)	$C_J$	28.0							pF
Typical reverse recovery time (NOTE 2)	$t_{rr}$	2.0							$\mu s$
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	20.0 5.0							$^\circ C/W$
Operating junction temperature range	$T_J$	-50 to +150							$^\circ C$
Storage temperature range	$T_{STG}$	-50 to +175							$^\circ C$

**NOTES:**

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$
- (3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 0.8 x 0.8" (20 x 20mm) copper heatsinks

# RATINGS AND CHARACTERISTIC CURVES G1500 THRU G1510

