LGE-1N4001-4007-2008

SPECIFICATION

OF PRODUCTS

RoHS Products

CUSTOMER : _____

PRODUCT NAME: DIODE

PART NUMBER : DO-41 1N4007

SHENZHEN LUGUANG ELECTRONIC TECHNOLOGY CO.,LTD

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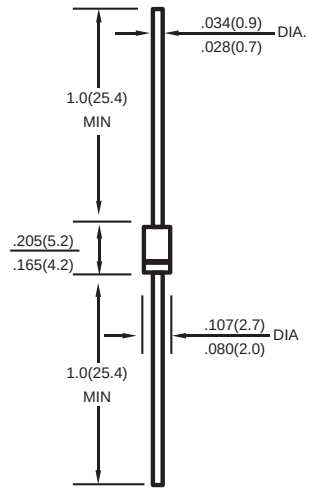
Approved by	Checked by	Drawn by

GENERAL PURPOSE SILICON RECTIFIER

IN4001 THRU IN4007

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.0 Ampere

DO-41



Dimensions in inches and (millimeters)

FEATURES

- Low cost construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds/0.375″(9.5mm)lead length at 5 lbs (2,3kg) tension

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:**0.012 ounce,0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase,half wave,60Hz,resistive or inductive load.
For capacitive load derate current by 20%.

	SYMBOLS	IN 4001	IN 4002	IN 4003	IN 4004	IN 4005	IN 4006	IN 4007	UNITS
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_A=75°C	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage T_A=25°C	I_R	5.0							μAmps
Maximum DC Reverse Current at rated DC blocking voltage T_A=100°C	I_R	50							μAmps
Maximum Full Load Reverse Current,full cycle average 0.375" (9.5mm) lead length at T_L=75°C	$I_{R(AV)}$	30							μAmps
Typical Junction Capacitance(NOTE1)	C_J	15							pF
Typical Thermal Resistance(NOTE2)	$R_{\theta JA}$	50							°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-65 to +175							°C

NOTES:
1.Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2.Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length,P.C.board mounted with 0.2″X0.2″ (5.0X5.0mm)copper pads.

RATINGS AND CHARACTERISTIC CURVES

IN4001 THRU IN4007

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

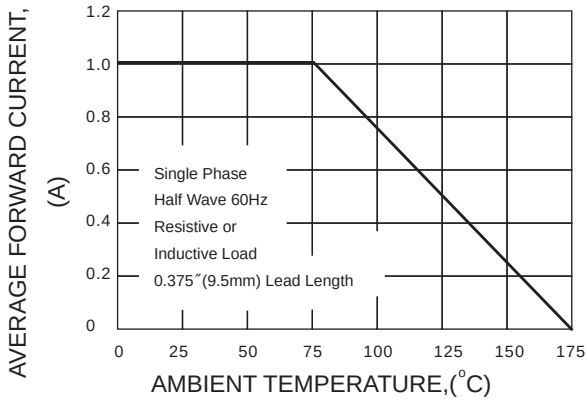


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

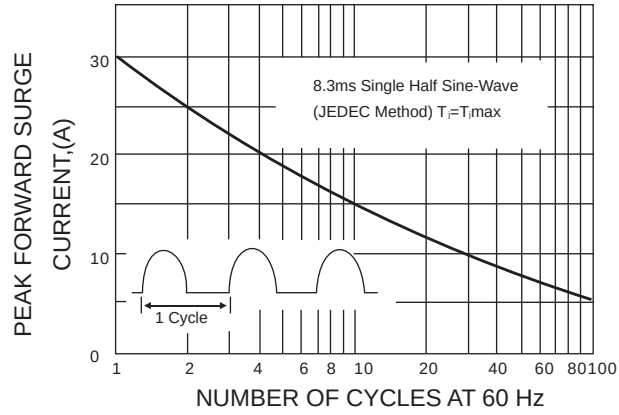


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

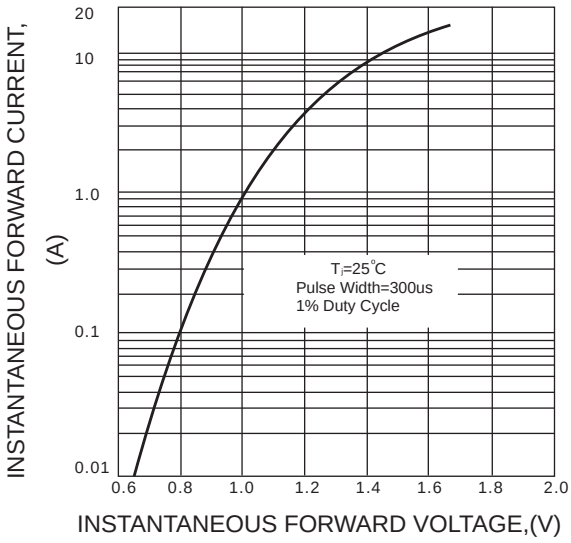


FIG.4-TYPICAL REVERSE CHARACTERISTICS

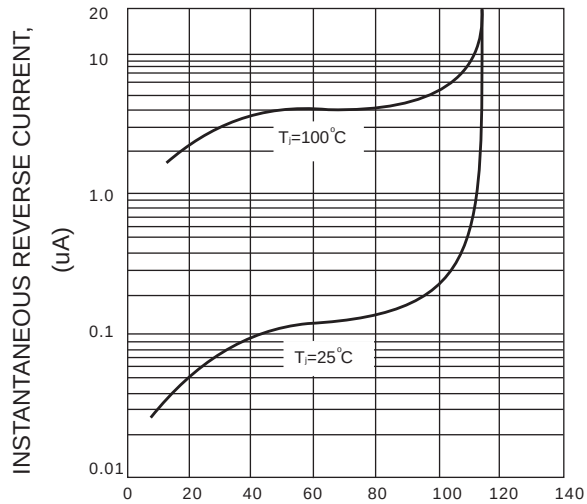


FIG.5-TYPICAL JUNCTION CAPACITANCE