



PRESS FIT AUTOMOTIVE RECTIFIER (LUCAS)

LPR501 THRU LPR506

VOLTAGE RANGE 100 to 600 Volts

CURRENT 50.0 Amperes

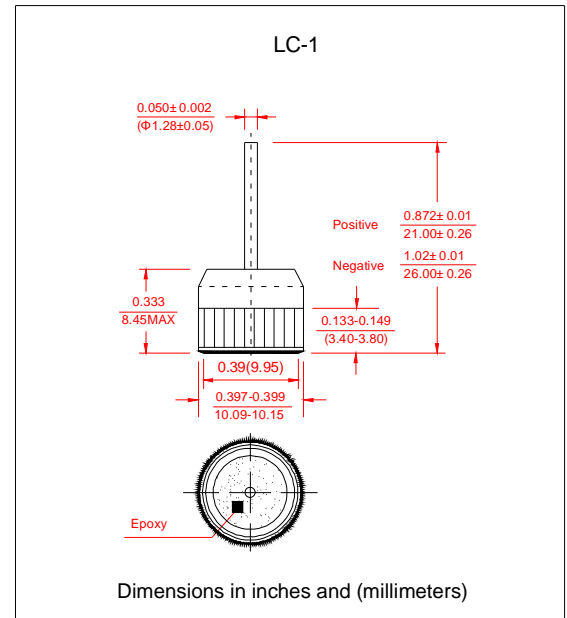
TECHNICAL SPECIFICATION:

FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity

MECHANICAL DATA

- Technology: Glass passivated chip with vacuum soldered
- Case: Copper case
- Polarity: As marked of case bottom
- Lead: Plated lead, solderable per MIL-STD-202E method 208C
- Mounting: Press Fit
- Weight: 0.23 ounces, 6.58 grams



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	LPR501	LPR502	LPR503	LPR504	LPR506	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	70	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	300	400	600	Volts
Maximum Average Forward Rectified Current, At $T_c=105^\circ\text{C}$	$I_{(AV)}$	50					Amps
Peak Forward Surge Current 3.3mS single half sine wave superimposed on Rated load (JEDEC method)	I_{FSM}	600					Amps
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	1494					A^2S
Maximum instantaneous Forward Voltage at 100A	V_F	1.05					Volts
Maximum DC Reverse Current at Rated $T_A=25^\circ\text{C}$ DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	5.0					UA
		450					
Typical Thermal Resistance	$R_{\theta JC}$	0.8					$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	(-65 to +175)					$^\circ\text{C}$

Notes:

1. Enough heatsink must be considered in application.



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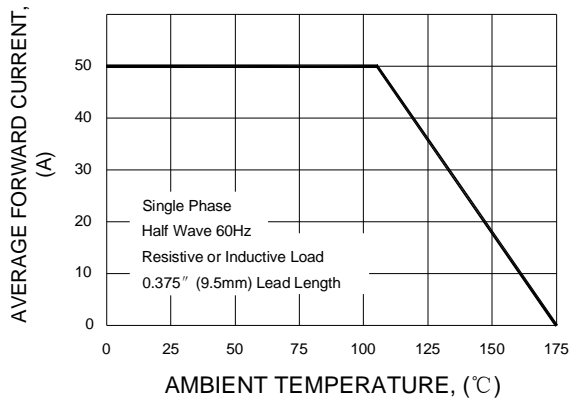
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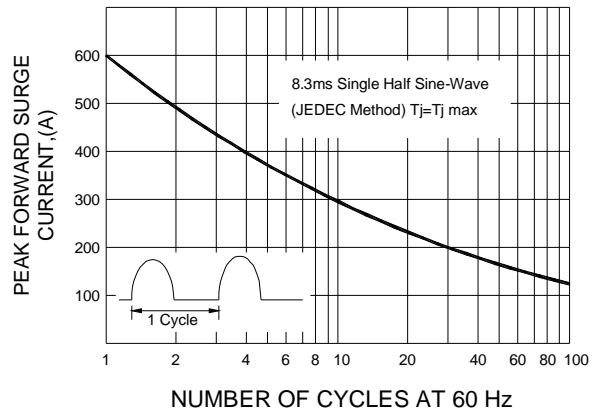
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RATINGS AND CHARACTERISTIC CURVES LPR501 THRU LPR506

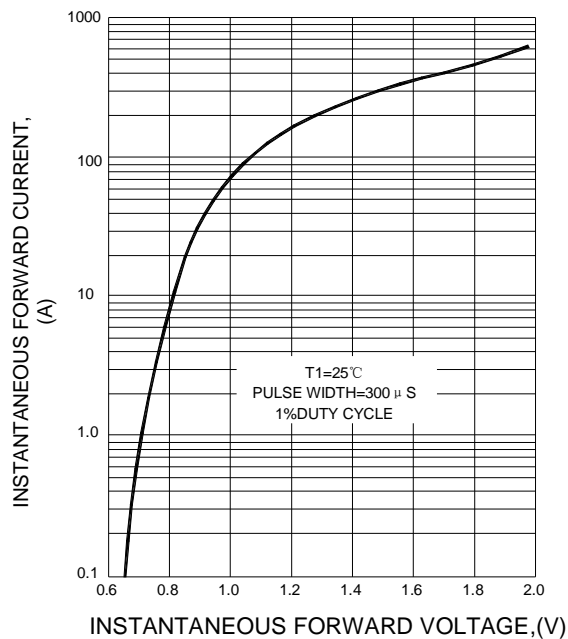
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

