

GENERAL PURPOSE SILICON RECTIFIER

FEATURES

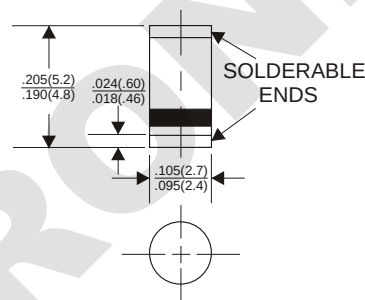
- Low cost construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds/0.375" (9.5mm) lead length
at 5 lbs (2,3kg) tension

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

VOLTAGE RANGE
CURRENT50 to 1000 Volts
1.0 Ampere

MELF/LL-41



Dimensions in inches and (millimeters)

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	DL 4001	DL 4002	DL 4003	DL 4004	DL 4005	DL 4006	DL 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
	T _A =100°C		50							
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 _{θJA}	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" X 0.2" (5.0X5.0mm) copper pads.

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

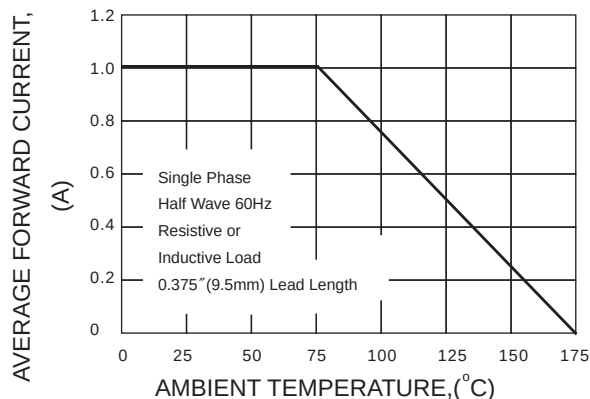


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

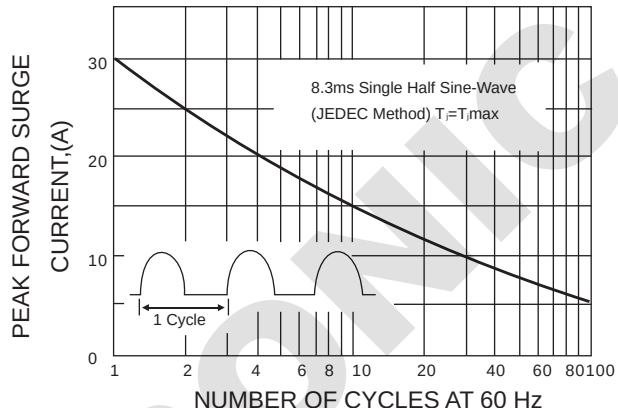


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

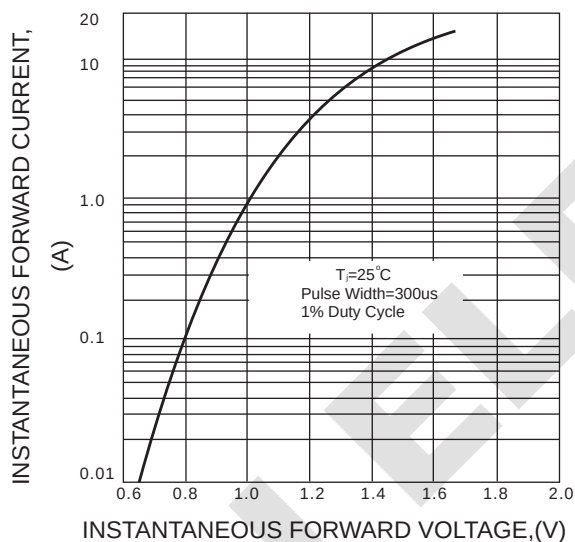


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

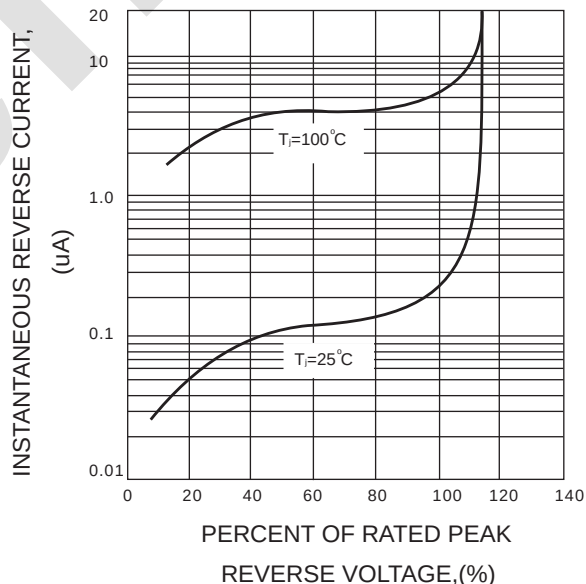


FIG.5-TYPICAL JUNCTION CAPACITANCE

