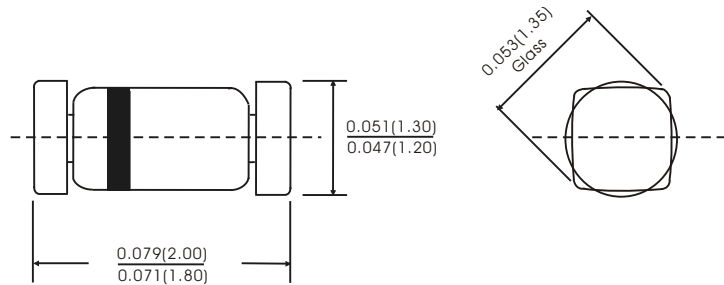


MCL4148 THRU MCL4448

SURFACE MOUNT SWITCHING DIODES

FEATURES:

- Saving apace
- Fits SOD-323/SOT-23 footprints
- Micro Melf package
- Silicon epitaxial planar



MECHANICAL DATA

Case: glass case

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	MCL4148	MCL4448	Units
Maximum peak reverse voltage	V _{RRM}	100		Volts
Maximum reverse voltage	V _R	75		Volts
Average rectified current .half wave rectification with Resistive load at T _a =25 °C And V _R =0V	I _(AV)	0.15		Amps
Peak forward surge current, <1S single half sine-wave auperimposed on rated load T _a =25 °C	I _{FSM}	2.0		Amps
Power dissipation at T _a =25°C	P _v	500		mW
Maximum instantaneous forward voltage IF=10mA IF=5mA IF=100mA	V _F	1.0		Volts
		0.72 1.0		
MINMUN rectification efficiency at f=100MHZ , V _{HF} =2V	η	45		%
Maximun leakage current At V _R =20V At V _R =75V At V _R =20V T _a =150 °C	I _R	25		nA
		5		uA
		50		uA
Maximum breakdpwn voltage	V _(BR)	100		Volts
Maximum Reverse recovery time (Note 1)	TRR	8		ns
Maximun junction capacitance V _R =V _F =0V , f= 1 MHz VHF =50mV	C _D	4		pF
Maximun Thermal resistance junction to ambient (on PC board 50mmx 50mmx1 6mm)	R _{th JA}	500		K /W
Operating temperature range	T _J	175		°C
storage temperature range	T _{stg}	-65 to+ 175		°C

NOTES:

(1)Reverse recovery condition I_F=0.01A , I_R =0.001A , V_R=6V , R_L =100

