

# MCL4448

## FAST SWITCHING SURFACE MOUNT DIODES

**VOLTAGE**
**100 Volts**
**POWER**
**500 mWatts**
**MICRO-MELF**

Unit : inch(mm)

### FEATURES

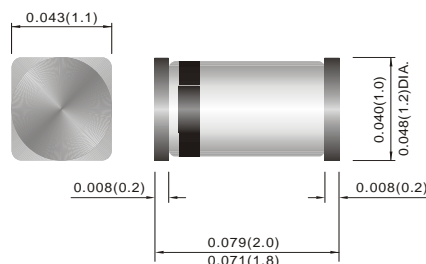
- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxial Planar Construction.
- Lead free in comply with EU RoHS 2002/95/EC directives.

### MECHANICAL DATA

- Case: MICRO, MELF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Marking: Cathode Band Only
- Weight: 0.011 grams(approx)

T/R - 3K per 7" plastic reel

T/R - 10K per 13" plastic reel



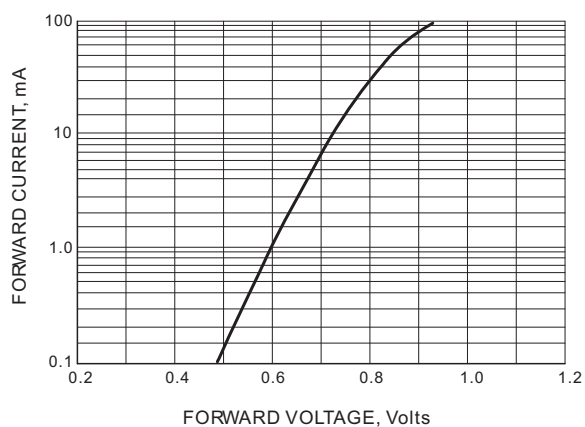
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	MCL4448	UNITS
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	75	V
Maximum Average Forward Current at T <sub>A</sub> =25°C And f ≥50Hz	I <sub>AV</sub>	150	mA
Surge Forward Current at t < 1s and T <sub>J</sub> =25°C	I <sub>FSM</sub>	500	mA
Power Dissipation at T <sub>A</sub> = 25°C	P <sub>TOT</sub>	500	mW
Maximum Forward Voltage at I <sub>F</sub> =100mA	V <sub>F</sub>	1	V
Maximum Leakage Current at V <sub>R</sub> =20V at V <sub>R</sub> =20V ,T <sub>J</sub> =150°C	I <sub>R</sub>	25 50	nA μA
Maximum Capacitance at V <sub>F</sub> =V <sub>R</sub> =0	C <sub>J</sub>	4	pF
Maximum Reverse Recovery Time From I <sub>F</sub> =-I <sub>R</sub> =10mA to I <sub>RR</sub> =-1mA ,V <sub>R</sub> =6V R <sub>L</sub> =100Ω	t <sub>rr</sub>	4	ns
Typical Maximum Thermal Resistance	R <sub>θJA</sub>	350	°C / W
Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>S</sub>	-65 to +175	°C

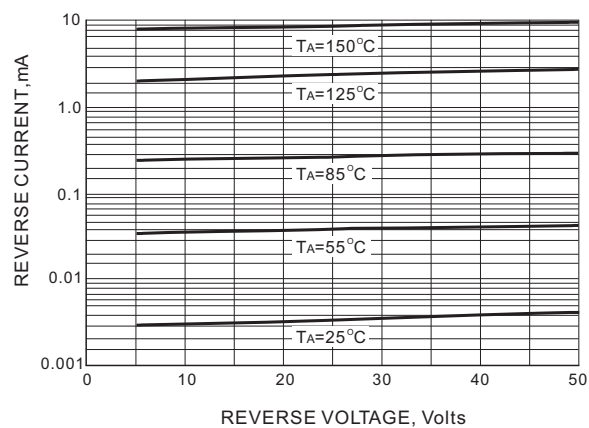
### NOTE:

1. C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ
2. From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω

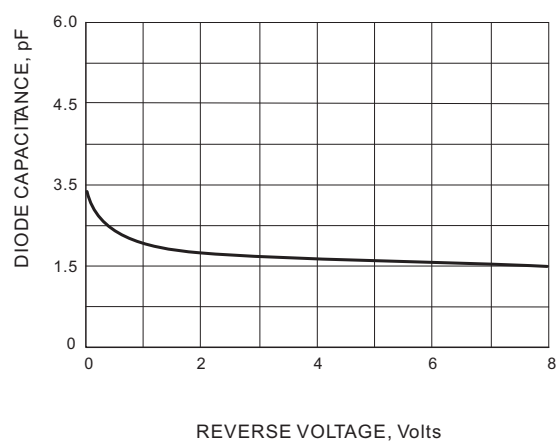
# MCL4448



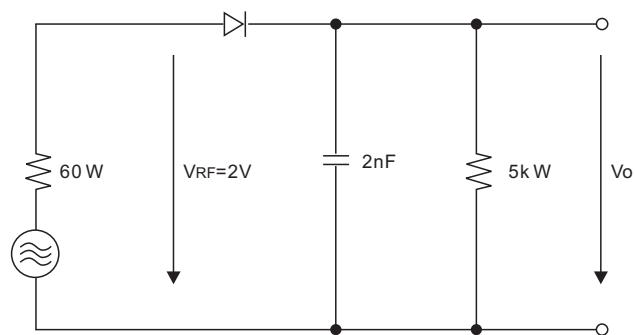
FORWARD VOLTAGE



LEAKAGE CURRENT



TYPICAL CAPATICANCE



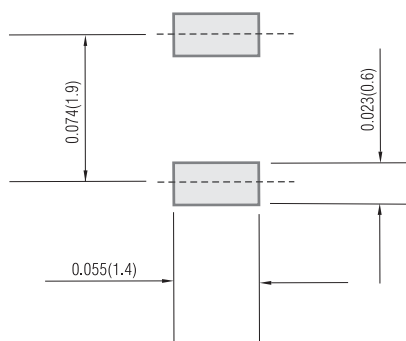
RECTIFICATION EFFCENCY MEASUREMENT CIRCUIT

# MCL4448

## MOUNTING PAD LAYOUT

MICRO-MELF

Unit: inch ( mm )



## ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 3K per 7" plastic Reel

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## Part No\_packing code\_Version

MCL4448\_R1\_10001

MCL4448\_R2\_10001

For example :

RB500V-40\_R2\_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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