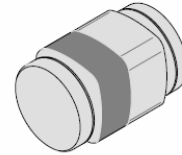


## Two Terminals SMD Switching Diodes

### Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Silicon Epitaxial Planar Construction
- RoHS compliant



MicroMELF



### Mechanical Data

<b>Case:</b>	MrcroMELF, Glass
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode
<b>Weight:</b>	Approx. 0.011 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	MCL4148	Unit	Conditions
<b>VRRM</b>	Repetitive Peak Reverse Voltage	100	V	
<b>IF(AV)</b>	Average Forward Rectified Current	0.15	A	f ≥50Hz
<b>IFSM</b>	Peak Forward Surge Current	0.5	A	t<1s
<b>PD</b>	Power Dissipation	500	mW	Derate above 25°C
<b>RthJA</b>	Typical Thermal Resistance	300	°C/W	
<b>TJ,TSTG</b>	Operating Junction and Storage Temperature Range	-65 to +175	°C	

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MCL4148	Unit	Conditions
<b>V<sub>F</sub></b>	Maximum Forward Voltage	1.0	V	I <sub>F</sub> =10mA
<b>I<sub>R</sub></b>	Maximum Leakage Current	25	nA	V <sub>R</sub> =20V, T <sub>J</sub> =25 °C
		5	μA	V <sub>R</sub> =75V, T <sub>J</sub> =25 °C
		50	μA	V <sub>R</sub> =20V, T <sub>J</sub> =150 °C
<b>C<sub>J</sub></b>	Typical Junction Capacitance	4	pF	V <sub>R</sub> =0V, f=1.0MHz
<b>T<sub>RR</sub></b>	Reverse Recovery Time	4	nS	From I <sub>F</sub> =10mA to I <sub>R</sub> =1mA, V <sub>R</sub> =6V R <sub>L</sub> =100Ω

### Typical Characteristics Curves

Fig.1- Power Derating Curve

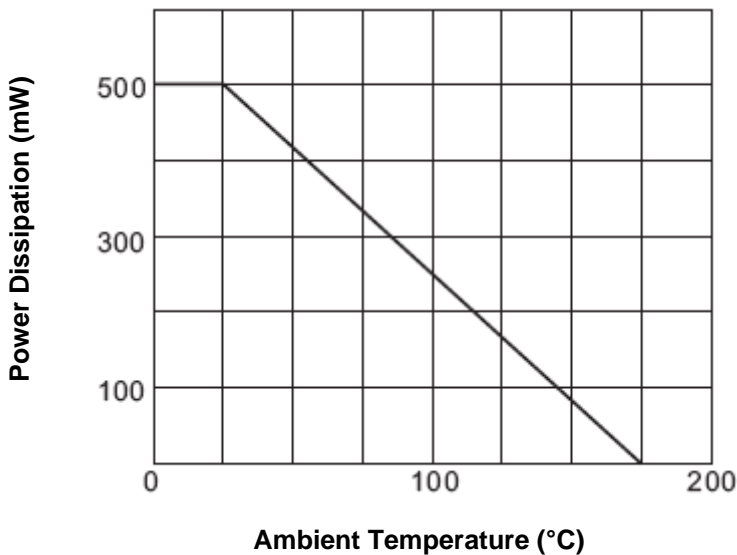


Fig.2- Typical Forward Characteristics

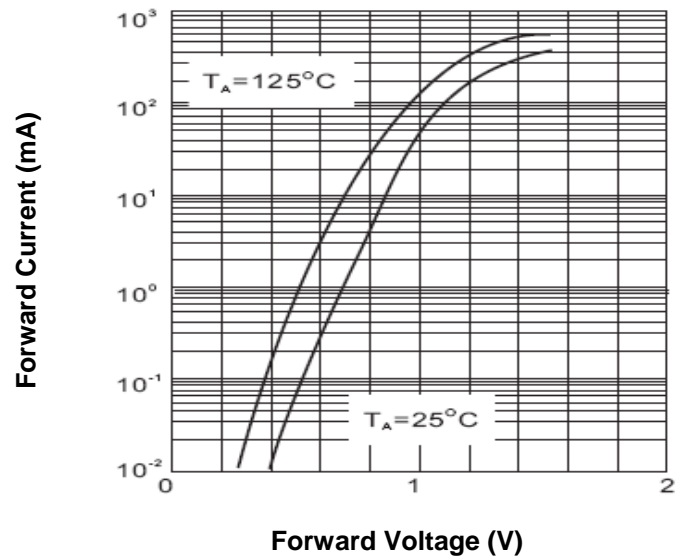


Fig.3-Leakage Current vs. Junction Temperature

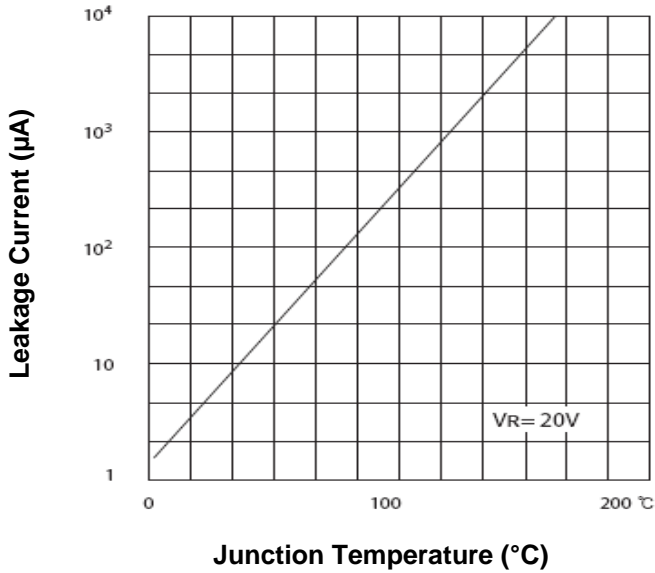
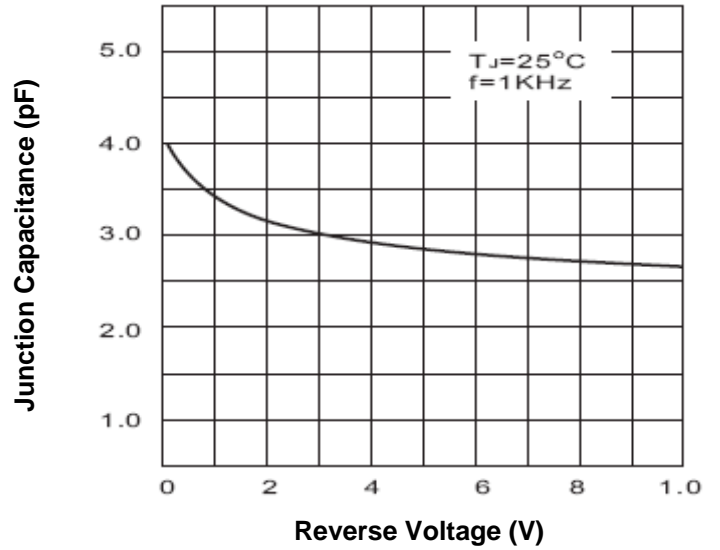
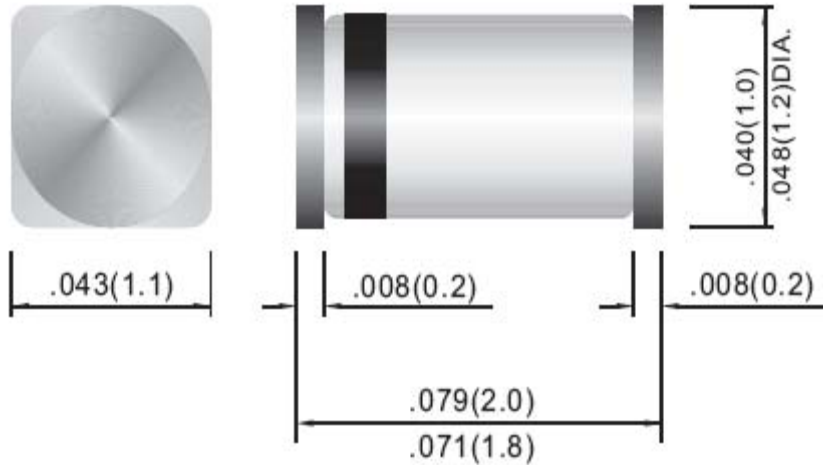


Fig.4- Typical Junction Capacitance

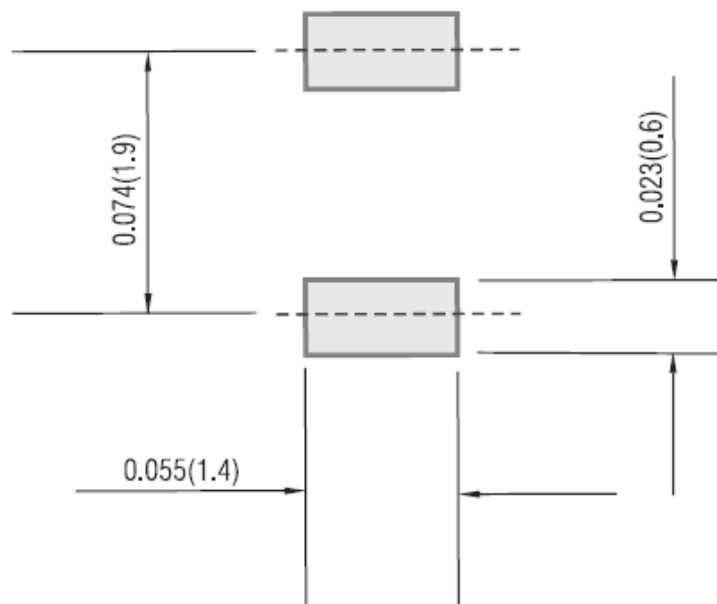


Dimensions in inch (mm)

MicroMELF



Mounting Pad Layout in inch (mm)



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