



# LL4148

## FAST SWITCHING SURFACE MOUNT DIODES

**VOLTAGE** 100 Volt **POWER** 500 mWatt

**MINI-MELF / LL34** Unit : inch(mm)

### FEATURES

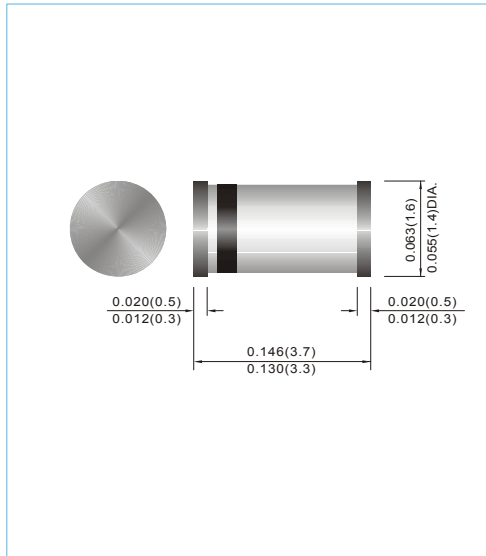
- Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- Silicon Epitaxial Planar Construction.
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

- Case: Mini Melf, Glass
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Marking: Cathode Band Only
- Weight: 0.001 ounce, 0.03 gram
- Packing information

T/R - 2.5K 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	VALUE	UNITS
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	75	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Maximum Average Forward Current at T <sub>A</sub> =25°C And f ≥50Hz	I <sub>F(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> =10mA	V <sub>F</sub>	1	V
Maximum Leakage Current at V <sub>R</sub> =20V at V <sub>R</sub> =75V at V <sub>R</sub> =20V , T <sub>J</sub> = 150°C at V <sub>R</sub> =100V	I <sub>R</sub>	25 5 50 100	nA μA μA 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> =100 Ω	t <sub>rr</sub>	4	ns
Typical Thermal Resistance	R <sub>θJA</sub>	300	°C / W
Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>S</sub>	-65 to +175	°C

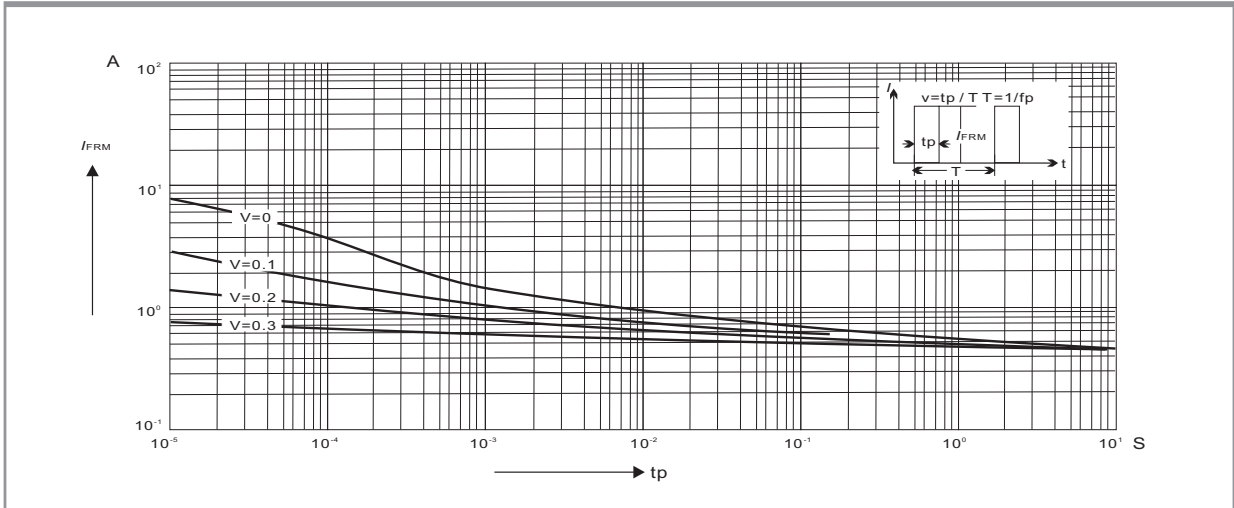
**NOTE:**

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

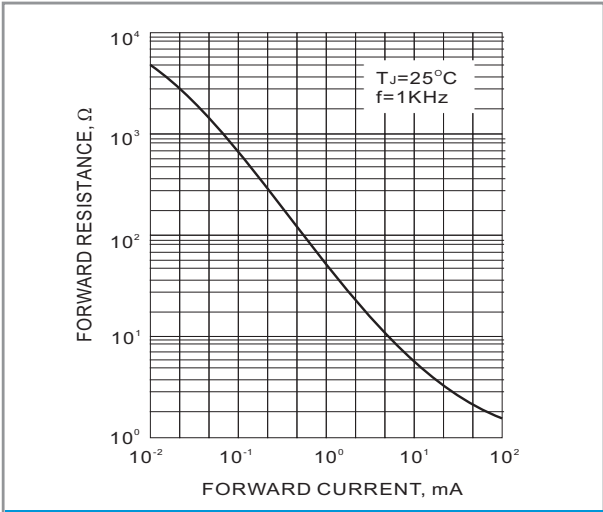


# LL4148

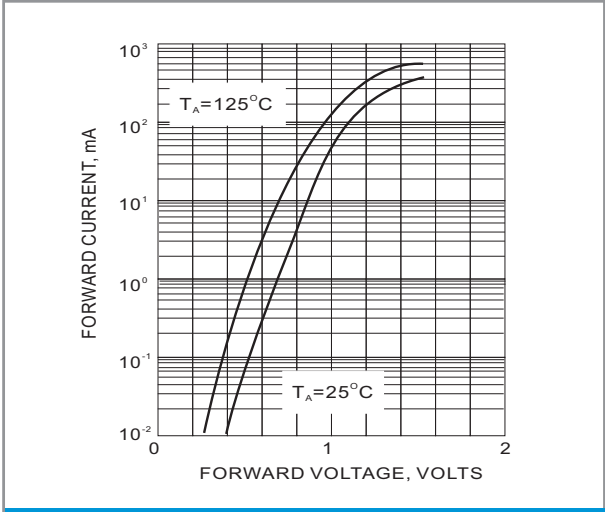
## RATING AND CHARACTERISTIC CURVES



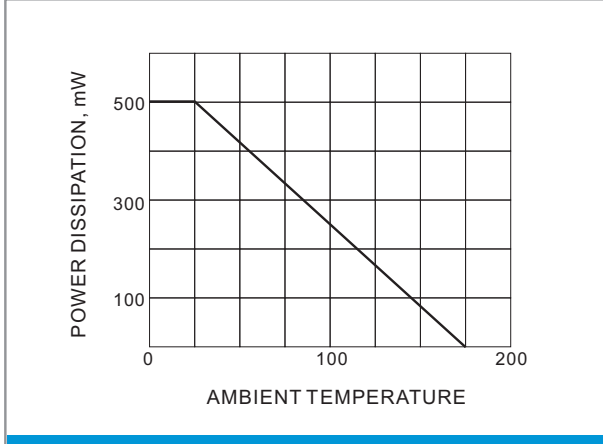
**Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION**



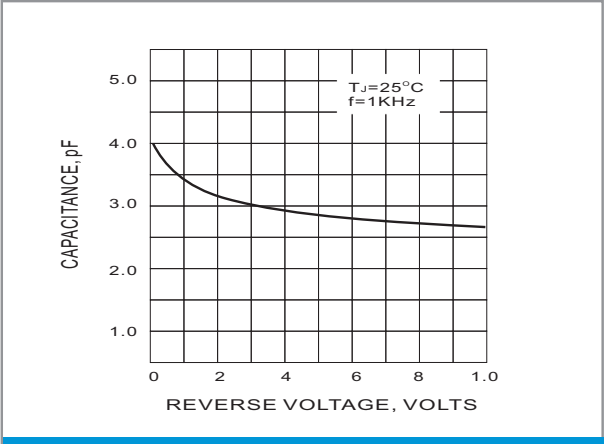
**Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT**



**Fig.3 FORWARD CHARACTERISTICS**



**Fig.4 DERATING CURVE**



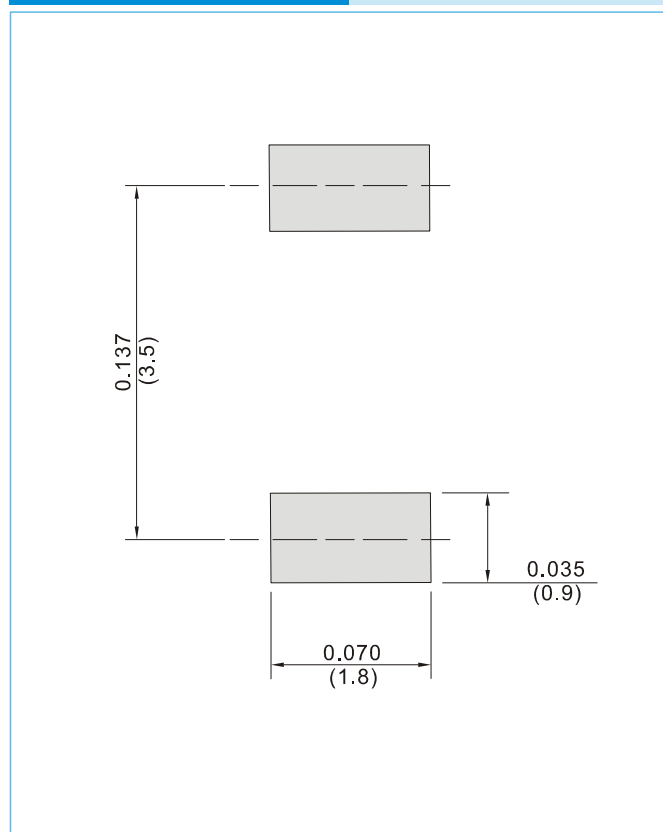
**Fig.5 TYPICAL JUNCTION CAPACITANCE**



# LL4148

## MOUNTING PAD LAYOUT

MINI-MELF / LL34 Unit : inch(mm)



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 2.5K per 7" plastic Reel



# LL4148

## Part No\_packing code\_Version

LL4148\_R1\_10001

LL4148\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



Packing type	Packing Code <b>XX</b>			Version Code <b>XXXXX</b>		
	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			



LL4148

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