

# LS4148

## FAST SWITCHING SURFACE MOUNT DIODES

**VOLTAGE** 100 Volts **POWER** 500 mWatts

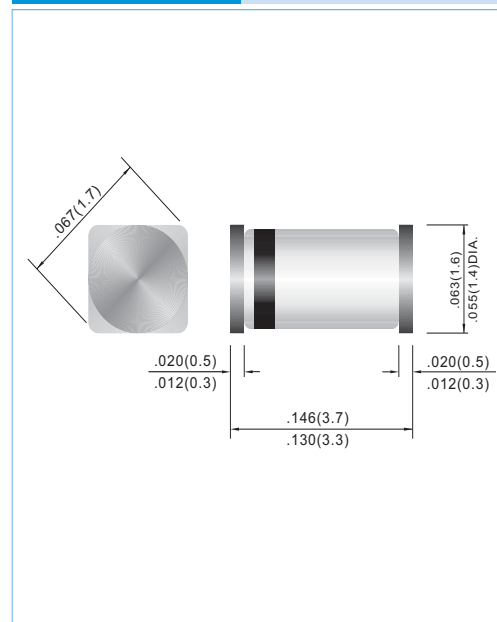
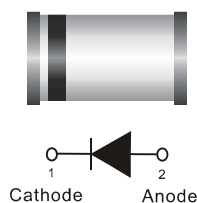
**QUADRO-MELF** Unit : inch (mm)

### 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: QUADRO MELF, Glass
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band
- Marking: Cathode Band Only

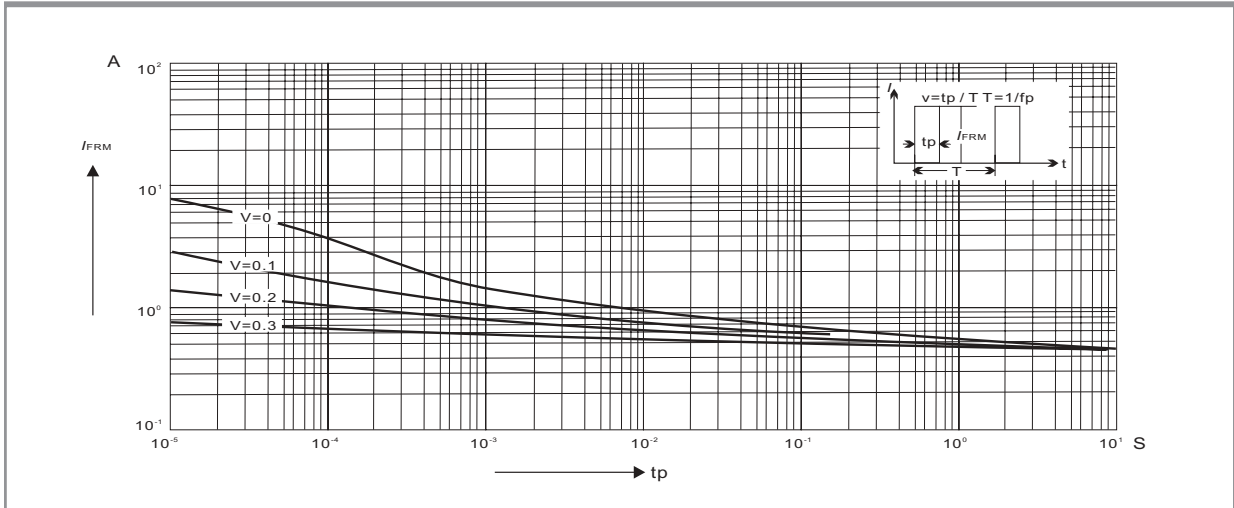


## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

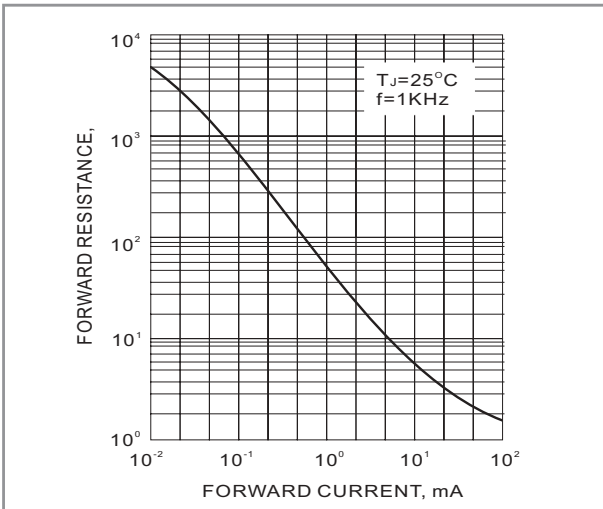
PARAMETER	SYMBOL	LS4148	UNITS
Peak Reverse Voltage	$V_{RM}$	100	V
Maximum Average Forward Current at Ta=25 °C And f ≥50Hz	$I_{F(AV)}$	150	mA
Surge Forward Current at t < 1s and Tj= 25 °C	$I_{FSM}$	500	mA
Power Dissipation at Tamb= 25 °C	$P_{TOT}$	500	mW
Maximum Forward Voltage at $I_F=10mA$	$V_F$	1.0	V
Maximum Leakage Current at $V_R=20V$ at $V_R=75V$ at $V_R=20V, T_J=150°C$	$I_R$	25 5 50	nA μA μA
Maximum Capacitance at $V_R=0V, f=1MHZ$	$C_J$	4	pF
Maximum Reverse Recovery Time From $I_F=10mA, I_{RR}=1mA, V_R=6V, R_L=100Ω$	$t_{rr}$	4	ns
Typical Thermal Resistance	$R_{θJA}$	300	°C / W
Junction Temperature and Storage Temperature Range	$T_J, T_S$	-65 to +175	°C

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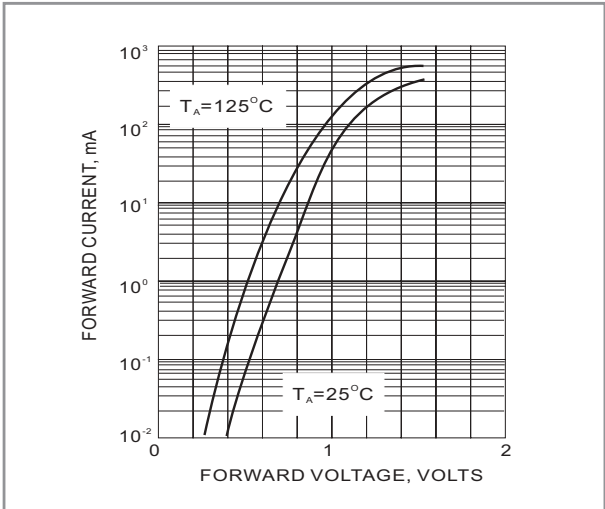
## RATING AND CHARACTERISTIC CURVES



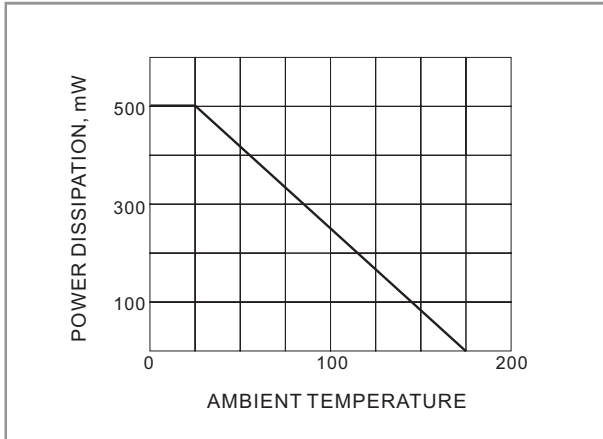
**Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION**



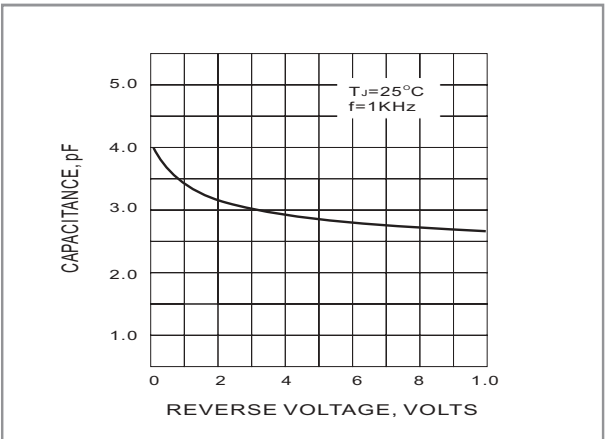
**Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT**



**Fig.3 FORWARD CHARACTERISTICS**



**Fig.4 DERATING CURVE**



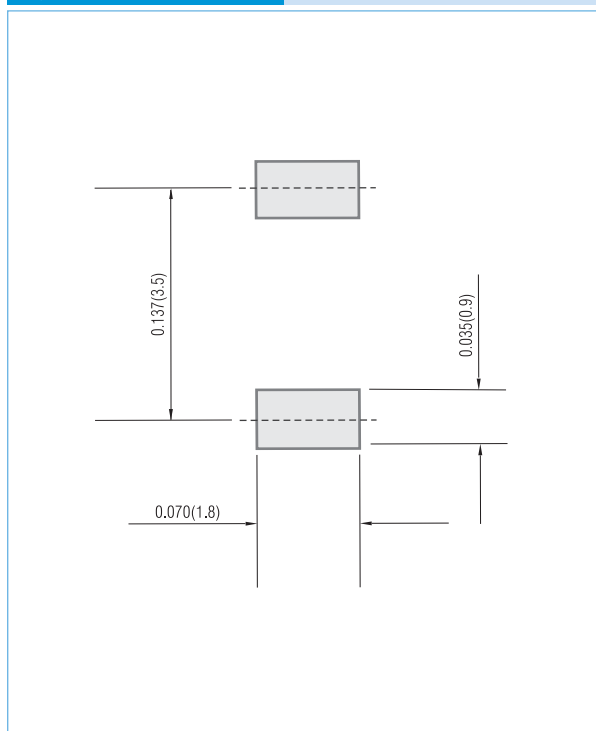
**Fig.5 TYPICAL JUNCTION CAPACITANCE**

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## MOUNTING PAD LAYOUT

QUADRO-MELF

Unit: inch ( mm )



## ORDER INFORMATION

- Packing information

T/R - 2.5K per 7" plastic Reel

T/R - 10K per 13" plastic Reel

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## Part No\_packing code\_Version

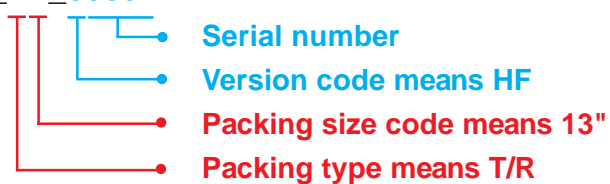
LS4148\_R1\_10001

LS4148\_R2\_10001

For example :

**RB500V-40\_R2\_00001**

Part No.



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

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