



#### **FAST SWITCHING SURFACE MOUNT DIODES**

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

#### **FEATURES**

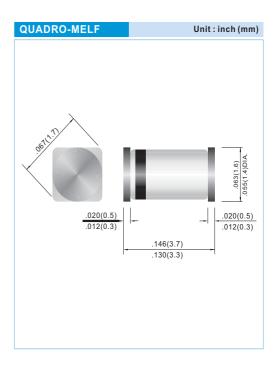
- · Fast switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion.
- · Silicon Epitaxal Planar Construction.
- Lead free in compliance with EU RoHS 2011/65/EU directive

#### **MECHANICAL DATA**

- · Case: QUADRO MELF, Glass
- Terminals: Solderable per MIL-STD-750, Method 2026
- · Polarity: Cathode Band
- · Marking: Cathode Band Only
- Weight: 0.03 grams
- Packing information

T/R - 2.5K per 7" plastic reel

T/R - 10K per 13" plastic reel



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

PARAMETER	SYMBOL	LS4148	UNITS
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Maximum Average Forward Current at Ta=25 °C And f ≥50Hz	I <sub>F(AV)</sub>	150	mA
Surge Forward Current at t < 1s and Tj= =25 °C	I <sub>FSM</sub>	500	mA
Power Dissipation at Tamb= 25 °C	P <sub>тот</sub>	500	mW
Maximum Forward Voltage at I <sub>F</sub> =10mA	V <sub>F</sub>	1.0	V
Maximum Leakage Current at $V_R$ =20V at $V_R$ =75V at $V_R$ =20V , $T_J$ = 150°C	I <sub>R</sub>	25 5 50	nA 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 $I_F$ =- $I_R$ =10mA to $I_{RR}$ =-1mA , $V_R$ =6V $R_L$ =100 $\Omega$	t,,	4	ns
Typical Thermal Resistance	R <sub>eJA</sub>	300	°C/W
Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>S</sub>	-65 to +175	°C

#### NOTE:

- 1. CJ at VR=0, f=1MHZ
- 2. From IF=10mA to IR=1mA, VR=6Volts, RL=100 $\Omega$

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#### **RATING AND CHARACTERISTIC CURVES**

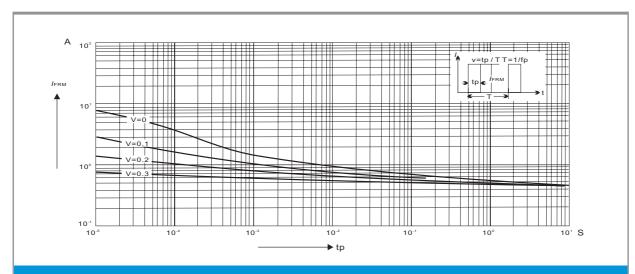


Fig. 1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

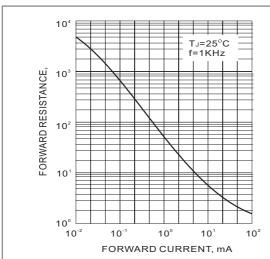


Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

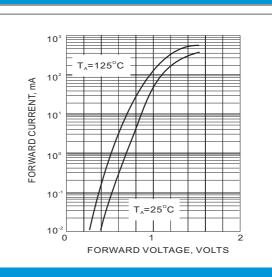


Fig.3 FORWARD CHARACTERISTICS

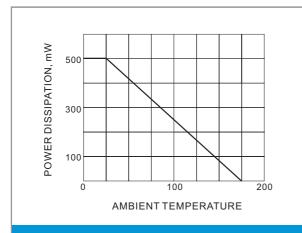


Fig.4 DERATING CURVE

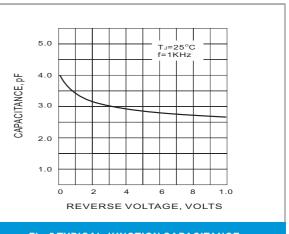


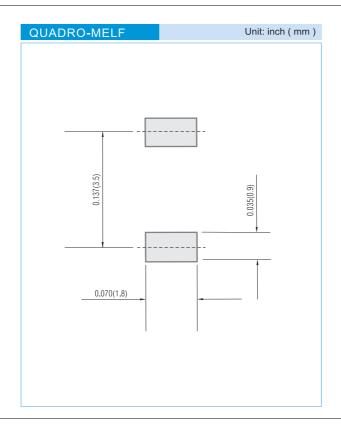
Fig.5 TYPICAL JUNCTION CAPACITANCE

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#### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

• Packing information

T/R - 10K per 13" plastic Reel

T/R - 2.5K per 7" plastic Reel





### Part No\_packing code\_Version

LS4148\_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)	В	13"	2			
Tube Packing (T/P)	Т	26mm	Х			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Υ			
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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