

DATA SHEET

LL4148

FAST SWITCHING SURFACE MOUNT DIODES

VOLTAGE 75 V **POWER** 500 mW

FEATURES

- FAST SWITCHING SPEED
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION
- SILICON EPITAXIAL PLANAR CONSTRUCTION
- LEAD FREE AND HALOGEN-FREE

MECHANICAL DATA

- CASE: MINI MELF ,GLASS
- TERMINALS: SOLDERABLE PER MIL-STD-202E, METHOD 208
- POLARITY: CATHODE BAND
- MARKING: CATHODE BAND ONLY
- WEIGHT: 0.05 GRAMS



CASE : MINI-MELF

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	VALUE	UNITS
MAXIMUM REVERSE VOLTAGE	V_R	75	V
PEAK REVERSE VOLTAGE	V_{RM}	100	V
RMS VOLTAGE	V_{RMS}	50	V
MAXIMUM AVERAGE FORWARD CURRENT AT $T_A=25^\circ\text{C}$ AND $f \geq 50\text{Hz}$	I_{AV}	150	mA
PEAK FORWARD SURGE CURRENT $< 1\text{s}$ AND $T_J=25^\circ\text{C}$	I_{FSM}	500	mA
MAXIMUM THERMAL RESISTANCE	$R_{\theta JA}$	350	$^\circ\text{C}/\text{W}$
POWER DISSIPATION DERATE ABOVE 25°C	P_{TOT}	500	mW
OPERATING JUNCTION AND STORAGE TEMPERATURE RANGE	T_J, T_{STG}	- 65 to + 175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (AT $T_A=25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	VALUE	UNITS
MAXIMUM FORWARD VOLTAGE AT 10mA	V_F	1.0	V
MAXIMUM DC REVERSE CURRENT	I_R	$V_R=20\text{V}$	nA
		$V_R=75\text{V}$	μA
		$V_R=20\text{V}, T_J=150^\circ\text{C}$	μA
JUNCTION CAPACITANCE (NOTE.1)	C_J	4.0	pF
MAXIMUM REVERSE RECOVERY TIME (NOTE.2)	T_{RR}	4.0	nS

NOTE:

1. C_J AT $V_R=0\text{V}, f=1\text{MHz}$
2. FROM $I_F=10\text{mA}$ TO $I_R=1\text{mA}, V_R=6\text{V}, R_L=100\Omega$

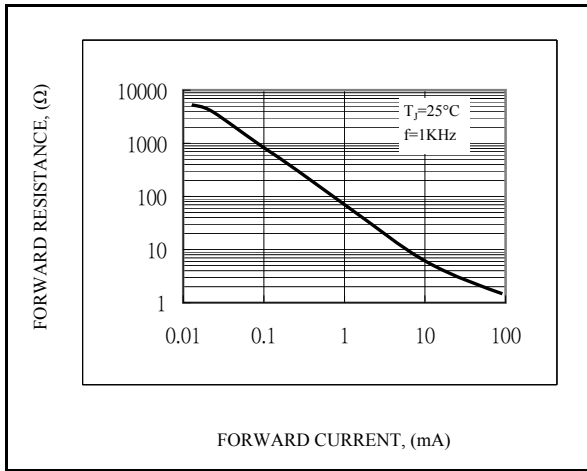


Fig.1-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

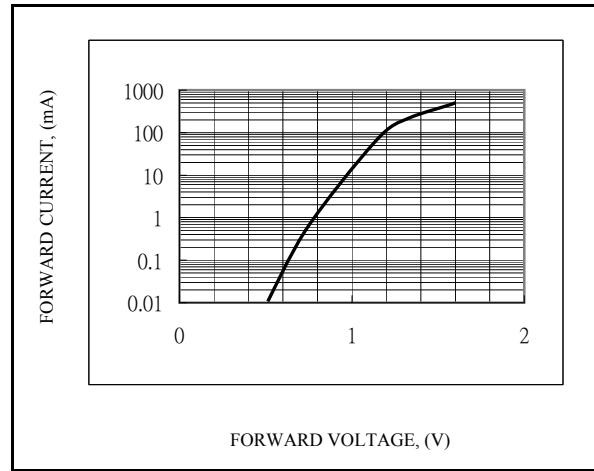


Fig.2-FORWARD CHARACTERISTICS

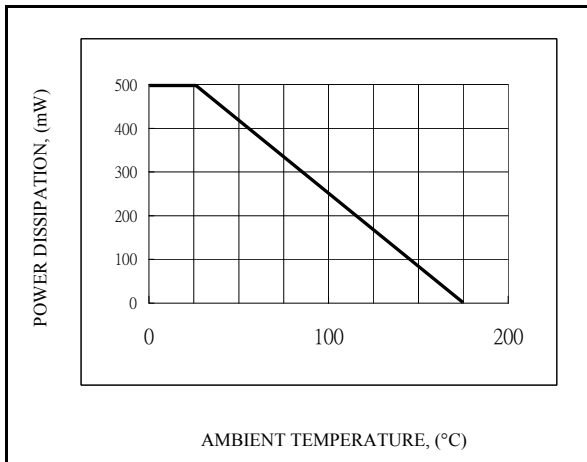


Fig.3-DERATING CURVE

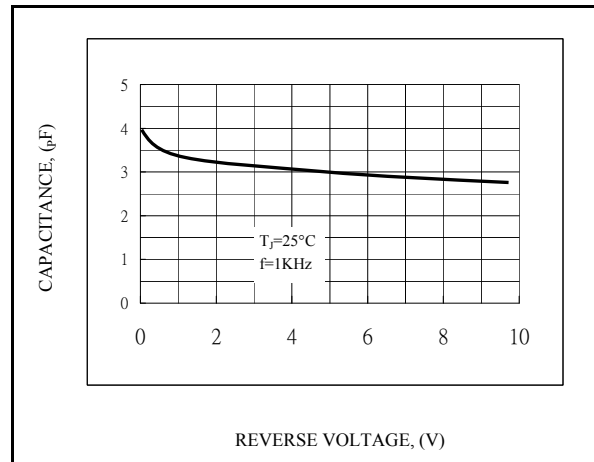
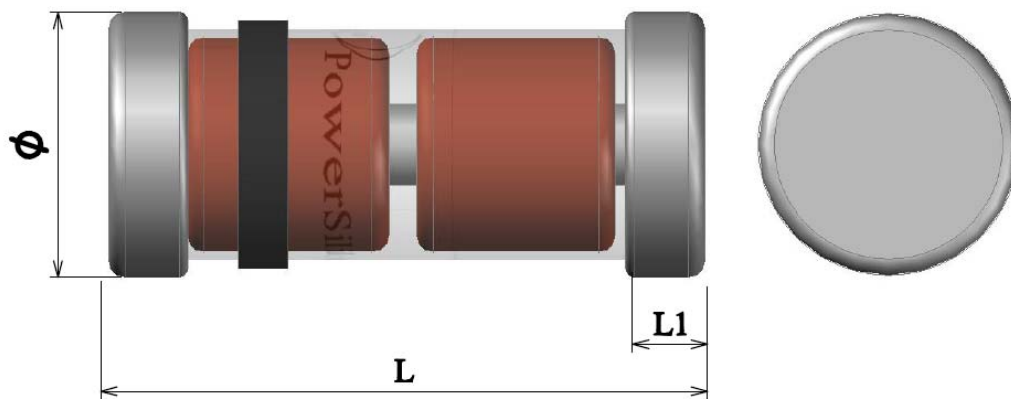


Fig.4-TYPICAL JUNCTION CAPACITANCE

MINI-MELF DIMENSION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
L	3.40	3.60	0.134	0.142
L1	0.28	0.48	0.011	0.019
Φ	1.40	1.60	0.055	0.063

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