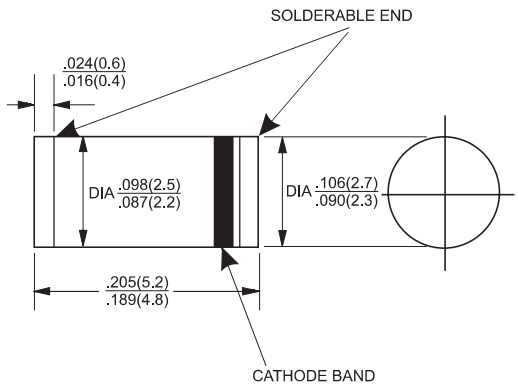
LSR102-LSR106

1.0AMP. Surface Mount Schottky Barrier Rectifiers

MELF



Dimensions in inches and (millimeters)

Features

- ✧ Surge overload ratings to 40 amperes peak
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- ✧ Terminal : Pure tin plated, lead free
- ✧ Mounting position: Any
- ✧ Weight: 0.12 gram

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	LSR102	LSR103	LSR104	LSR105	LSR106	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	1.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30					A
Maximum Instantaneous Forward Voltage @1.0A	V_F	0.55			0.70		V
Maximum DC Reverse Current @ T_A=25 °C at Rated DC Blocking Voltage @ T_A=125 °C	I_R	1.0 10					mA mA
Typical Junction Capacitance (Note)	Cj	110			80		pF
Typical Thermal Resistance	$R_{\theta JA}$	15					°C/W
Operating Temperature Range	T_J	- 65 to + 125			- 65 to + 150		°C
Storage Temperature Range	T_{STG}	- 65 to + 150					°C

Note: Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

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RATINGS AND CHARACTERISTIC CURVES (LSR102 THRU LSR106)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

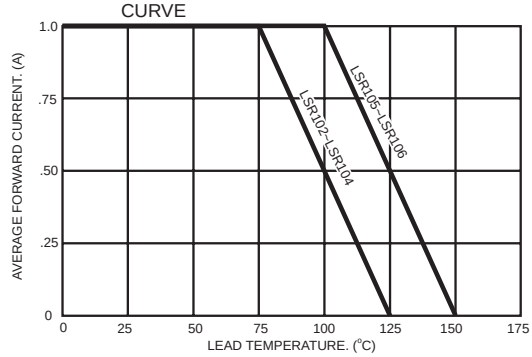

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

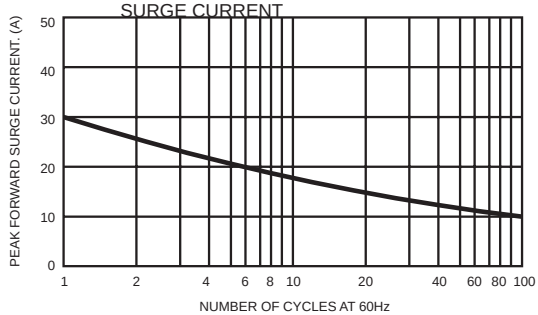

FIG.3- TYPICAL FORWARD CHARACTERISTICS

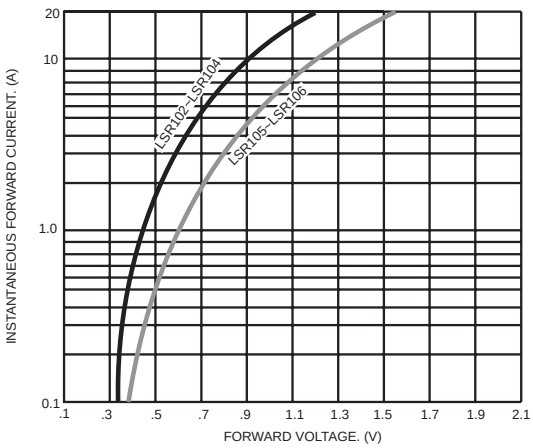

FIG.4- TYPICAL REVERSE CHARACTERISTICS

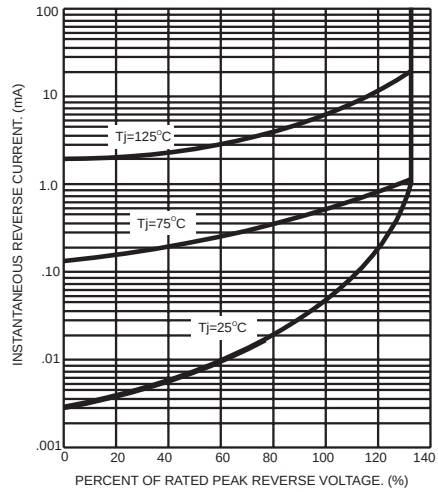

FIG.5- TYPICAL JUNCTION CAPACITANCE

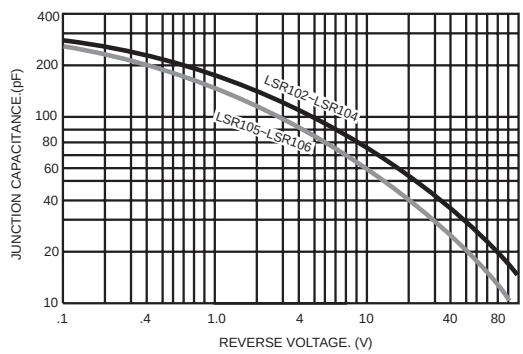

FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS