

# LM120 THRU LM1100

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 V

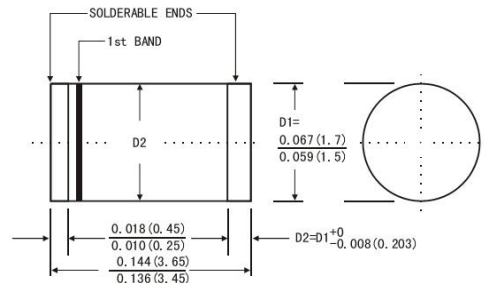
Forward Current - 1 A

### Features

- High current capability
- High surge current capability
- Low forward voltage drop
- For use in low voltage, high frequency inverters free wheeling ,and polarity protection applications

### Mechanical Data

- Case: MiniMELF (DO-213AA), molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MiniMELF (DO-213AA) Plastic Package

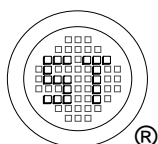
### Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	LM120	LM130	LM140	LM150	LM160	LM180	LM1100	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	80	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	V	
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	$I_{F(AV)}$	1							A	
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	40							A	
Maximum Forward Voltage at 1 A and 25 °C	$V_F$	0.55		0.7		0.85			V	
Maximum Reverse Current $T_A = 25\text{ °C}$ at Rated DC Blocking Voltage $T_A = 100\text{ °C}$	$I_R$	0.5					10			mA
Typical Junction Capacitance <sup>1)</sup>	$C_J$	110							pF	
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	75							°C/W	
Operating Junction Temperature Range	$T_j$	- 55 to + 125			- 55 to + 150				°C	
Storage Temperature Range	$T_{stg}$	- 55 to + 150								°C

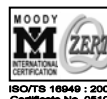
<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 VDC.

<sup>2)</sup> Thermal resistance junction to ambient 0.24" X 0.24"(6 X 6 mm) copper pads to each terminals



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

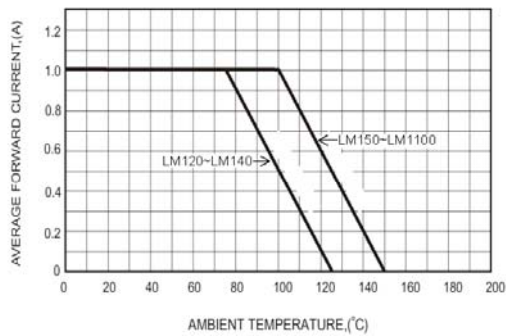


FIG.2-TYPICAL FORWARD CHARACTERISTICS

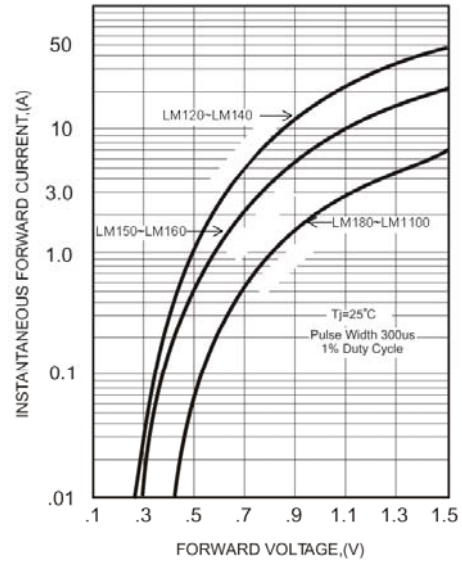


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

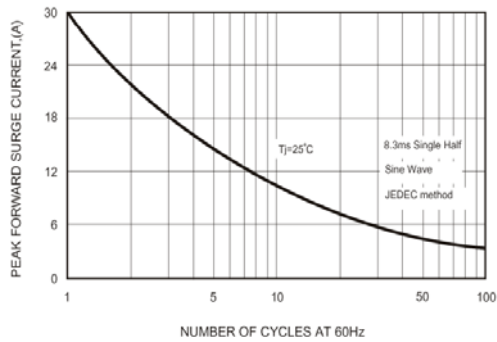


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

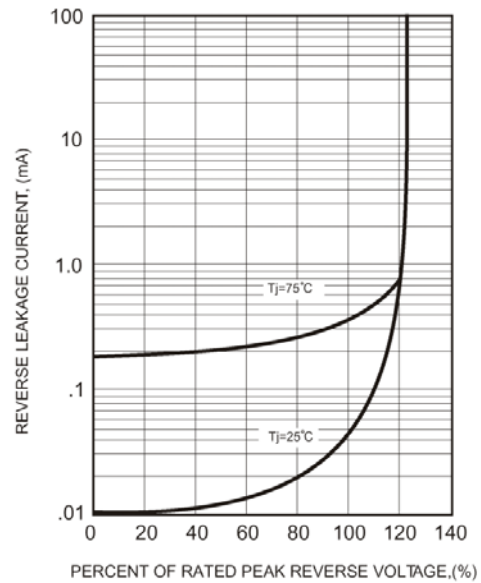
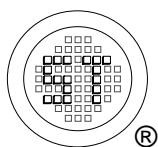
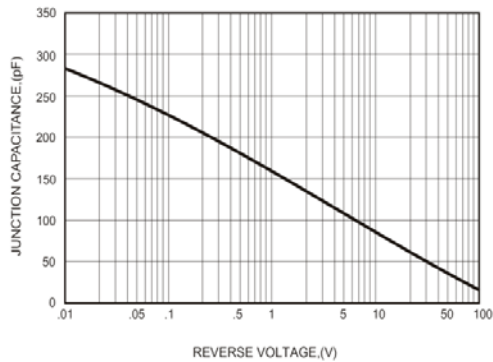


FIG.4-TYPICAL JUNCTION CAPACITANCE



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