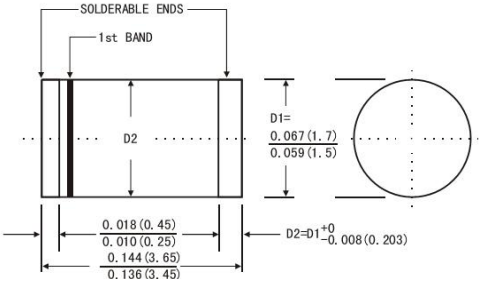
LM120 THRU LM1100

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



MiniMELF (DO-213AA) Plastic Package

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

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 °C at Rated DC Blocking Voltage T_A = 100 °C	I_R	0.5 10							mA
Typical Junction Capacitance [1]	C_J	110							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	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

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC.

[2] Thermal resistance junction to ambient 0.24" X 0.24"(6 X 6 mm) copper pads to each terminals

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

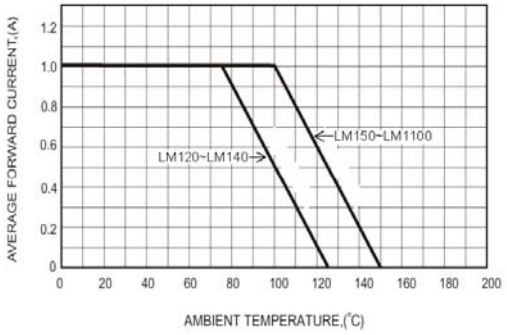


FIG.2-TYPICAL FORWARD CHARACTERISTICS

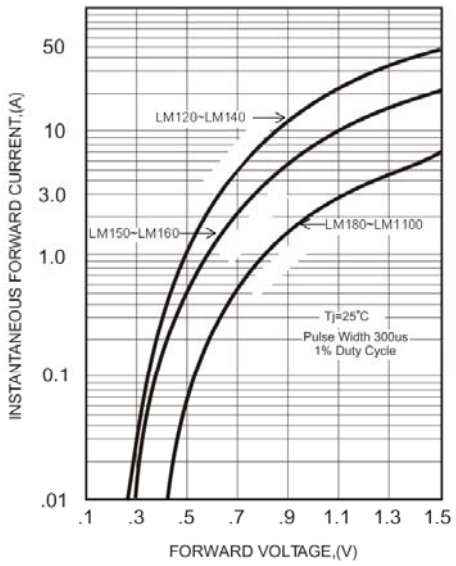


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

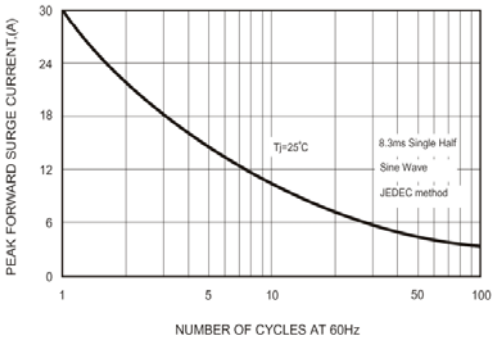


FIG.4-TYPICAL JUNCTION CAPACITANCE

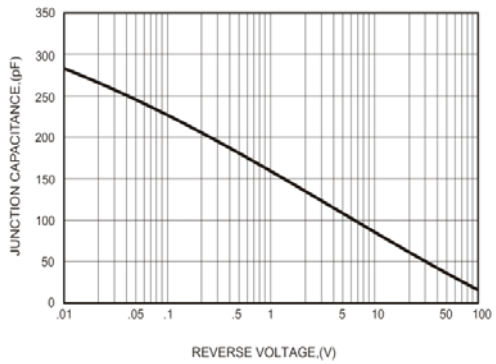


FIG.5 - TYPICAL REVERSE CHARACTERISTICS