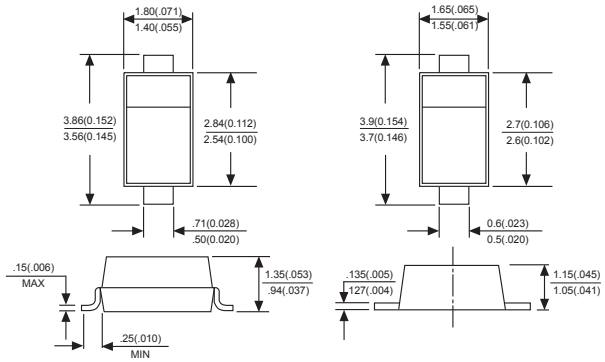
MBR120ESF

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 20V Forward Current - 1.0A

SOD-123



Dimensions in millimeters and (inches)

FEATURES

For use in low voltage, high frequency inverters
Free wheeling, and polanty protection applications

MECHANICAL DATA

Case: Molded plastic body
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on case
Marking:L2E

Maximum ratings and electrical characteristics, Single diode @T_A=25℃

PARAMETER	SYMBOLS	FIGURE	UNITS
Peak repetitive peak reverse voltage Working peak reverse voltage DC Blocking voltage	V_{RRM} V_{RWM} V_R	20	V
RMS Reverse voltage	$V_{R(RMS)}$	28	V
Average rectified output current	Io	1	A
Peak forward surge current @=8.3ms	I_{FSM}	25	A
Repetitive peak forward current	I_{FRM}	625	mA
Power dissipation	Pd	250	mW
Thermal resistance junction to ambient	$R_{\Theta JA}$	500	K/W
Storage temperature	T_{STG}	-65 to +150	℃
Non-Repetitive peak reverse voltage	V_{RM}	20	V

Electrical ratings @T_A=25C

PARAMETER	SYMBOLS	Min.	Max.	Unit	Test conditions
Reverse breakdown voltage	$V_{(BR)}$	20		V	I_R=1mA
Reverse voltage leakage current	I_R		1	mA	V_R=20V
Forward voltage	V_F		0.6	V	I_F=1A
Diode capacitance	C_D		120	pF	V_R=4V,f=1.0MHz

FIG. 1- FORWARD CURRENT DERATING CURVE

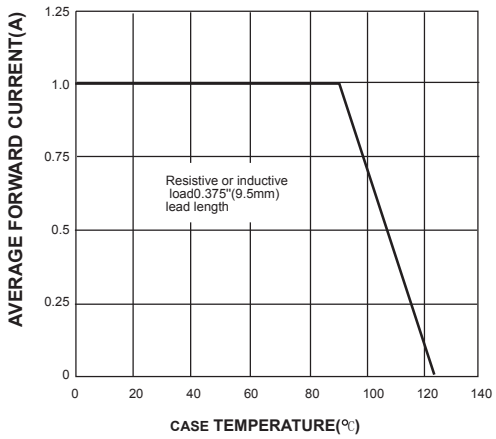


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

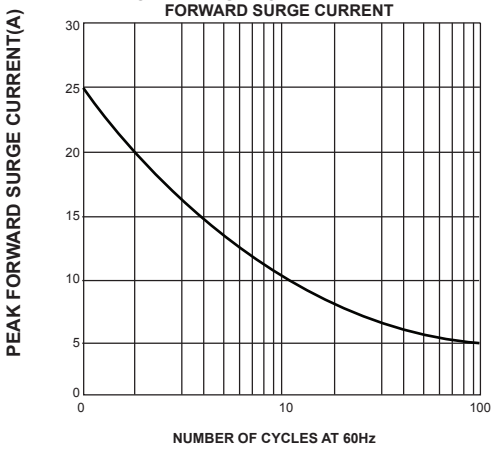


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

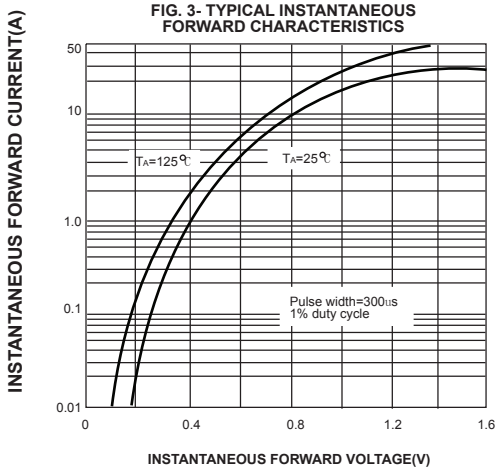


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

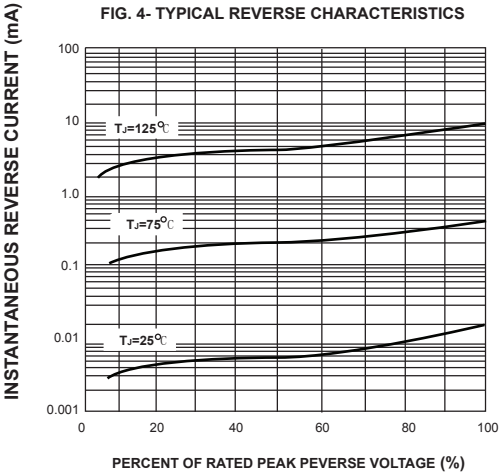


FIG. 5- TYPICAL JUNCTION CAPACITANCE

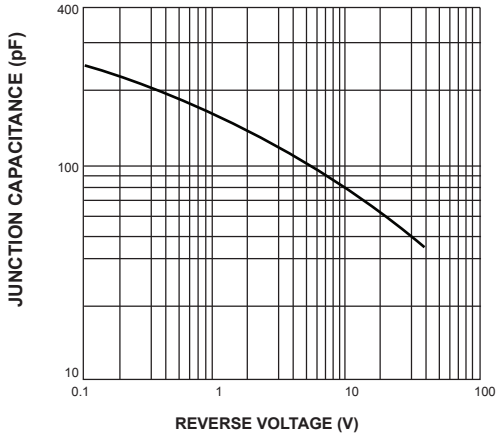


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE