

MBR120S THRU MBR1100S 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

1 Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- High current capacity ,low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering guaranteed: 260°C /10 seconds at terminals
- High temperature soldering : 260OC / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS



2 Mechanical Data

- Case : Molded plastic, JEDEC DO-214AC
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes positive end (cathode)
- Weight : 0.01 gram

3 Absolute Maximum Ratings (T_C = 25°C unless otherwise noted)

Symbol	Parameter	MBR 120S	MBR 130S	MBR 140S	MBR 150S	MBR 160S	MBR 180S	MBR 1100S	Units
	Marking code	T2	T3	T4	T5	T6	T7	T8	--
V _{RRM}	Maximum recurrent peak reverse voltage	20	30	40	50	60	80	100	V
V _{RMS}	Maximum rms voltage	14	21	28	35	42	56	71	V
V _{DC}	Maximum DC blocking voltage	20	30	40	50	60	80	100	V
I _O	Maximum average forward rectified current at TL	1.0							A
I _{FSM}	Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	20							A
R _{θJA}	Maximum Thermal Resistance (note 1)	98.0							°C/W
T _{STG}	Storage temperature range	-55 to +150							°C
T _{OP}	Operating temperature range	-55 to +150							°C

* note :

1. Mounted on P.C. Board with 5.0mm² (.013mm thick) copper pad areas.



DEVICE SPECIFICATION

MBR120S THRU MBR1100S 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

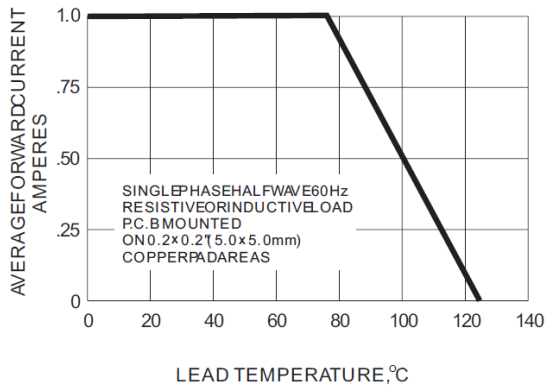
Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	MBR 120S	MBR 130S	MBR 140S	MBR 150S	MBR 160S	MBR 180S	MBR 1100S	Units
V_F	Maximum forward voltage at 1.0A (note 1)	0.55			0.70		0.85		V
I_R	Maximum reverse current at 25 $^\circ\text{C}$	0.5							mA

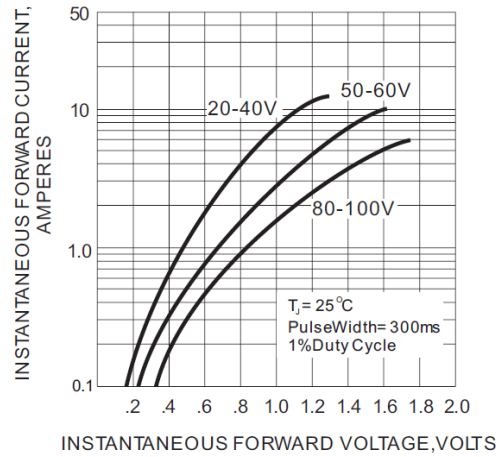
* note :

1. Pulse Test with $PW = 300\mu\text{sec}$, 2% Duty Cycle.

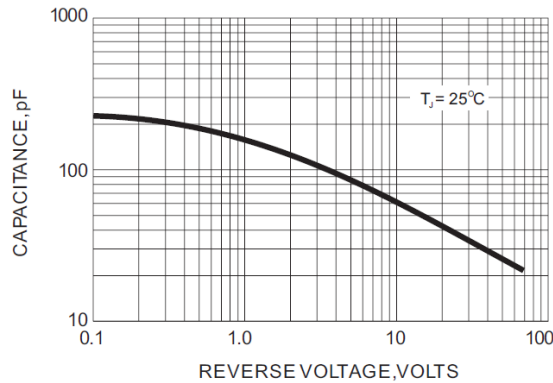
MBR120S THRU MBR1100S 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



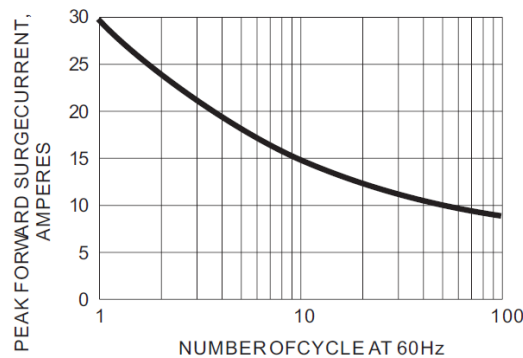
FORWARD CURRENT DERATING CURVE



TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE

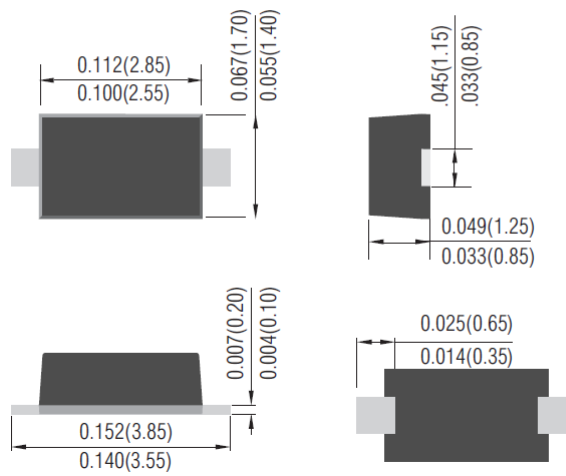


MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

MBR120S THRU MBR1100S 1A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

4 Package Dimensions

SOD-123S Unit:inch(mm)





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Note

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contact

Alpha Pacific Technologies Co., Ltd
3F-6, No.18, Lane 609, Sec.5
Chung Sin road, Shan Chang Dist.,
New Taipei City, TAIWAN, R.O.C

tel +886-2-2999 5456
fax +886-2-2999 5270
internet www.aptw.com