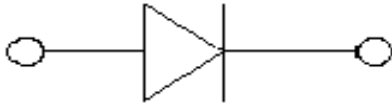


Schottky Rectifier



Features

- VR 20V/30V/40V
- I_{FAV} 0.5A
- For Surface Voltage and Extremely Low Thermal Resistance
- Moisture Sensitivity Level 1

Mechanical Data

- **Package:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:**

MBR0520	R2
MBR0530	R3
MBR0540	R4

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	V		MBR0520	20
				MBR0530	30
				MBR0540	40
DC Blocking Voltage	V_R	V	$I_R=0.2mA$	MBR0520	20
				MBR0530	30
				MBR0540	40
Peak forward surge current	I_{FSM}	A	8.3ms, half sine	5.5A	
Average forward current	I_{FAV}	A		0.5	
Power dissipation	P_{tot}	mW		410	
Maximum junction temperature	T_j	°C		-55 to +125	
Storage temperature range	T_{stg}	°C		-55to +125	

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR0520	F2	Approximate 0.011	3000	30000	120000	7" reel
MBR0530	F2	Approximate 0.011	3000	30000	120000	7" reel
MBR0540	F2	Approximate 0.011	3000	30000	120000	7" reel



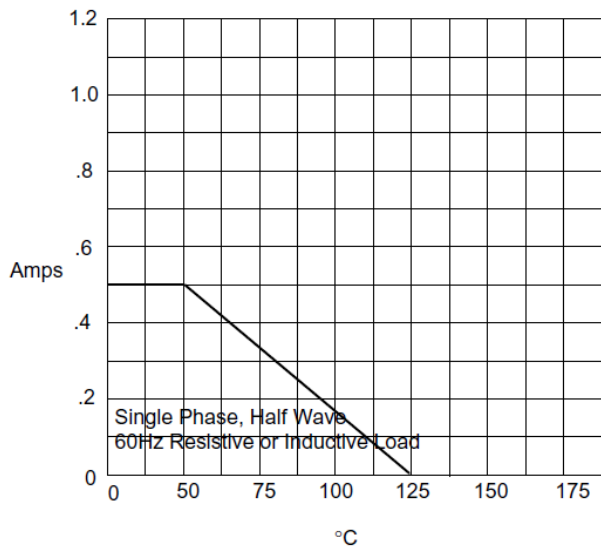
MBR0520 THRU MBR0540

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Value	
Breakdown Voltage	V _R	V	I _R =0.2mA	MBR0520	20
				MBR0530	30
				MBR0540	40
Forward Voltage	V _F	V	I _F =0.5A,	MBR0520	0.45
				MBR0530	0.55
				MBR0540	0.55
Reverse Leakage Current	I _R	mA	V _R =20V	MBR0520	0.2
			V _R =30V	MBR0530	
			V _R =40V	MBR0540	
Typical Junction Capacitance	C _J	pF	V _R =4V, f=1MHz	40	

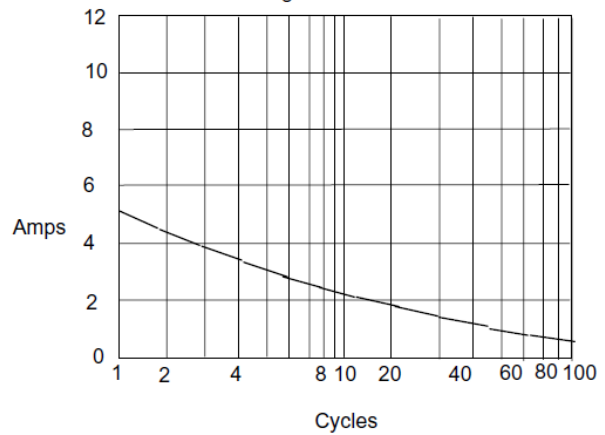
■ Characteristics (Typical)

Figure 1
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 2
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles



MBR0520 THRU MBR0540

Figure 3
Typical Forward Characteristics

MBR0520

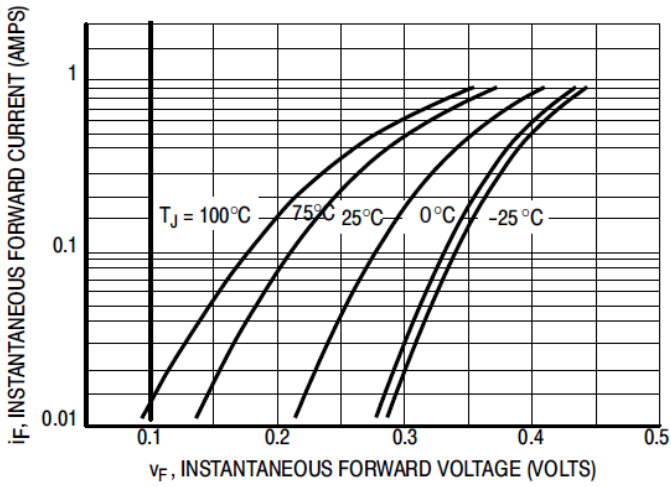
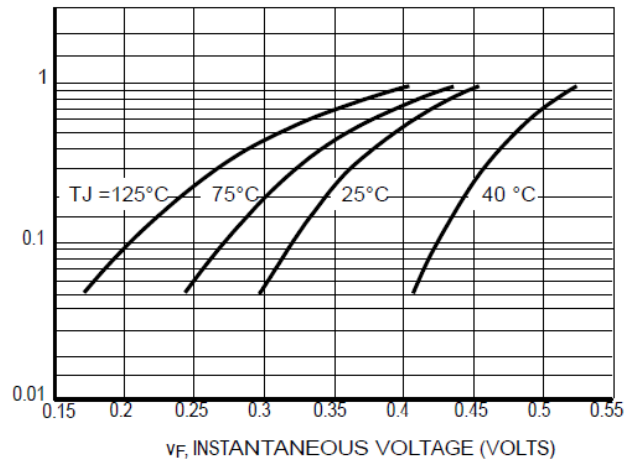
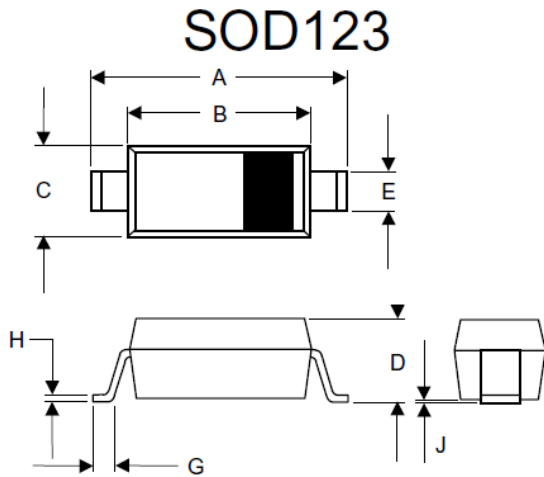


Figure 4
Typical Forward Characteristics
MBR0530~MBR0540

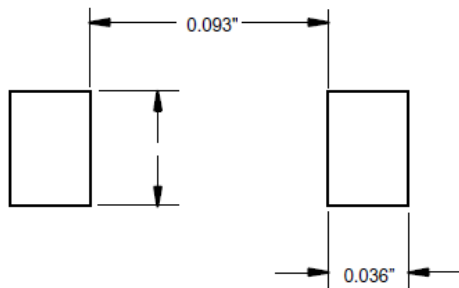


■ Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

■ Soldering Footprint



Unit: inch



MBR0520 THRU MBR0540

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