

## Silicon Power Schottky Diode

$V_{RRM} = 20\text{ V} - 100\text{ V}$

$I_F = 120\text{ A}$

### Features

- High Surge Capability
- Types up to 100 V  $V_{RRM}$

D-67 Package



Maximum ratings, at  $T_j = 25\text{ °C}$ , unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	MBRH12020 (R)	MBRH12030 (R)	MBRH12035 (R)	MBRH12040 (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		20	30	35	40	V
RMS reverse voltage	$V_{RMS}$		14	21	25	28	V
DC blocking voltage	$V_{DC}$		20	30	35	40	V
Continuous forward current	$I_F$	$T_C \leq 136\text{ °C}$	120	120	120	120	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$	2000	2000	2000	2000	A
Operating temperature	$T_j$		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°C
Storage temperature	$T_{stg}$		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°C

Electrical characteristics, at  $T_j = 25\text{ °C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MBRH12020 (R)	MBRH12030 (R)	MBRH12035 (R)	MBRH12040 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 120\text{ A}$ , $T_j = 25\text{ °C}$	0.65	0.65	0.65	0.65	V
Reverse current	$I_R$	$V_R = 20\text{ V}$ , $T_j = 25\text{ °C}$	4	4	4	4	mA
		$V_R = 20\text{ V}$ , $T_j = 125\text{ °C}$	250	250	250	250	

### Thermal characteristics

Thermal resistance, junction - case	$R_{thJC}$		0.8	0.8	0.8	0.8	°C/W
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Figure .1-Typical Forward Characteristics

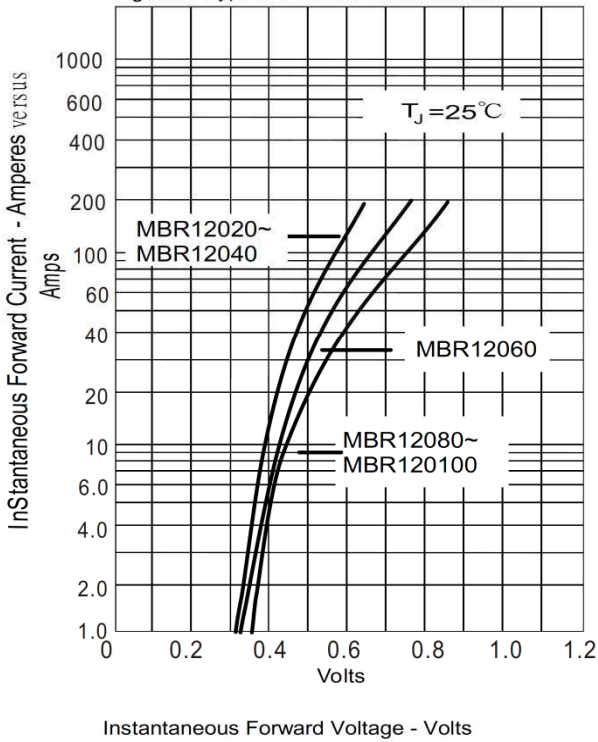
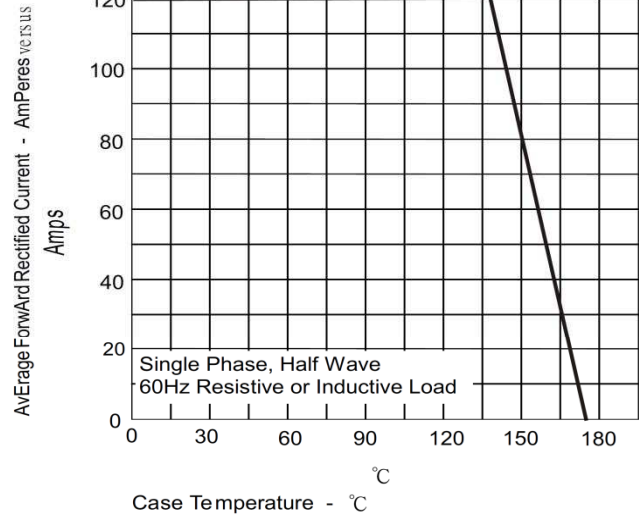


Figure .2-Forward Derating Curve



Instantaneous Forward Voltage - Volts

Figure .3-Peak Forward Surge Current

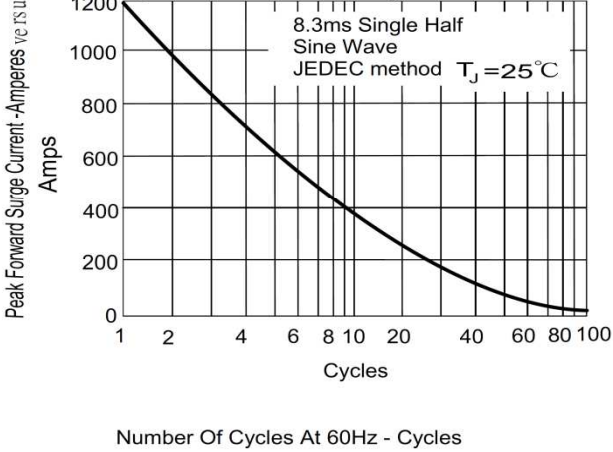
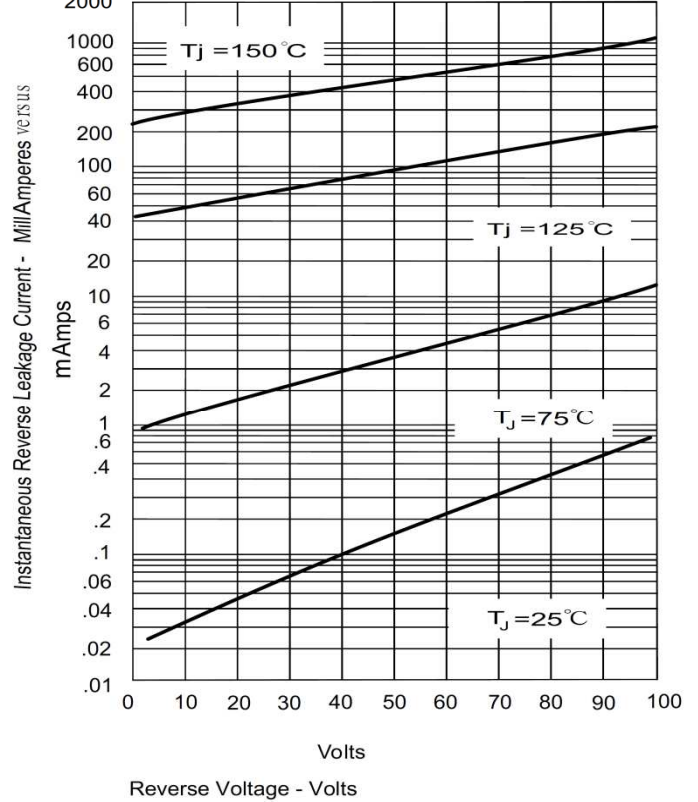
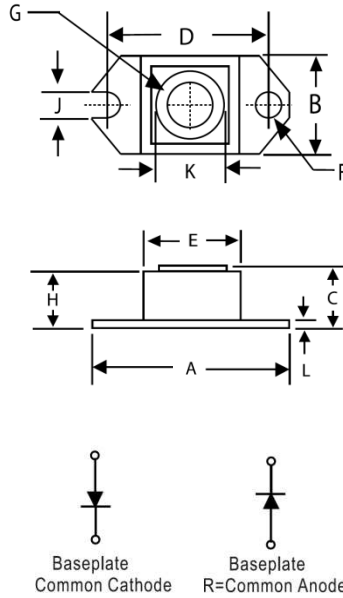


Figure .4-Typical Reverse Characteristics



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	1.515	1.560	38.48	39.62	
B	.725	.775	18.42	19.69	
C	.595	.625	15.11	15.88	
D	1.182	1.192	30.02	30.28	
E	.736	.744	18.70	18.90	
F	.152	.160	3.86	4.061	∅
G	1/4- 20 UNC				
H	.540	.580	13.72	14.73	
J	.156	.160	3.96	4.06	
K	.480	.492	12.20	12.50	∅
L	.120	.130	3.05	3.30	