

# Silicon Power Schottky Diode

 $V_{RRM} = 20\text{ V} - 100\text{ V}$ 
 $I_F = 400\text{ A}$ 

## Features

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

Three Tower Package



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

Parameter	Symbol	Conditions	MBRT40020 (R)	MBRT40030 (R)	MBRT40035 (R)	MBRT40040 (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	$I_F$	$T_C \leq 100\text{ °C}$	400	400	400	400	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$	3000	3000	3000	3000	A
Operating temperature	$T_j$		-40 to 150	-40 to 150	-40 to 150	-40 to 150	°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	MBRT40020 (R)	MBRT40030(R)	MBRT40035 (R)	MBRT40040 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 200\text{ A}$ , $T_j = 25\text{ °C}$	0.75	0.75	0.75	0.75	V
Reverse current	$I_R$	$V_R = 20\text{ V}$ , $T_j = 25\text{ °C}$	1	1	1	1	mA
		$V_R = 20\text{ V}$ , $T_j = 125\text{ °C}$	20	20	20	20	

## Thermal characteristics

Parameter	Symbol	Conditions	MBRT40020 (R)	MBRT40030 (R)	MBRT40035 (R)	MBRT40040 (R)	Unit
Thermal resistance, junction - case	$R_{thJC}$		0.14	0.14	0.14	0.14	°C/W

Figure .1- Typical Forward Characteristics

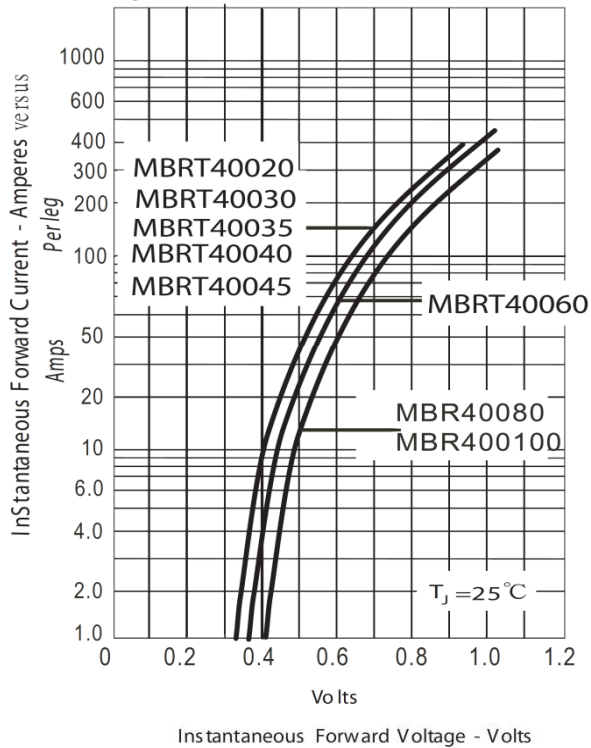


Figure .2- Forward Derating Curve

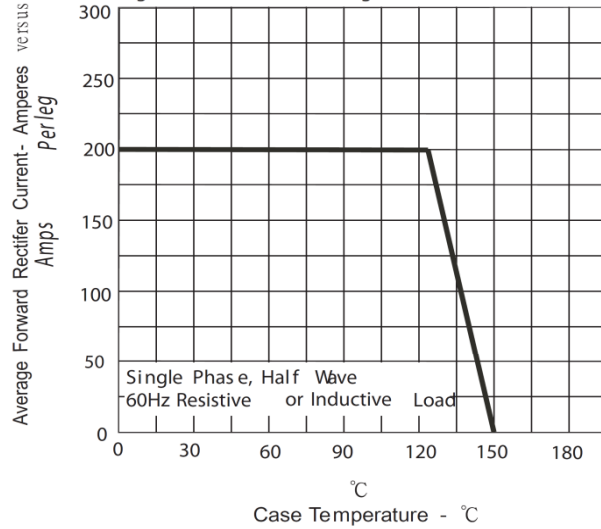


Figure.3-Peak Forward Surge Current

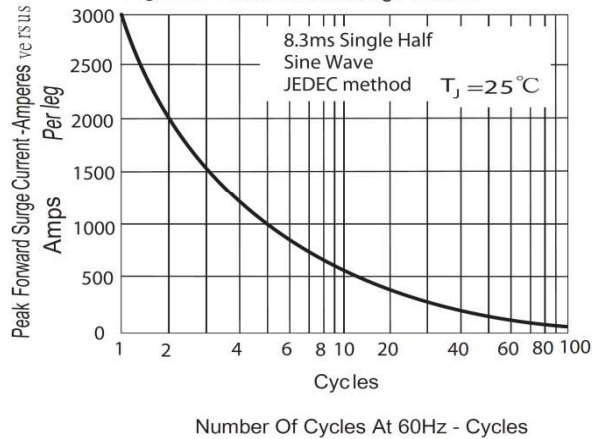
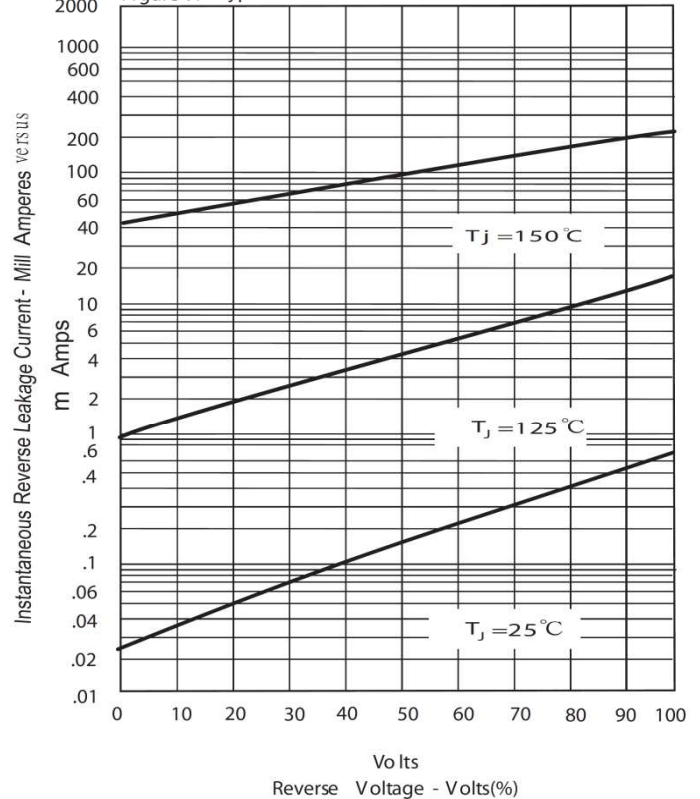
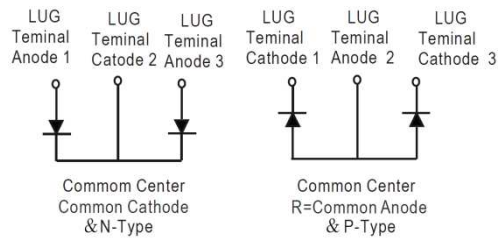
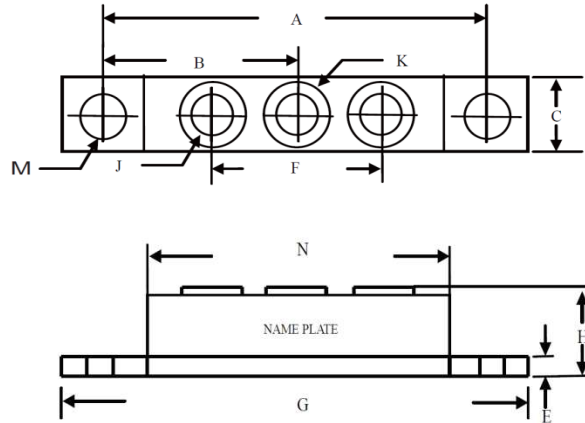


Figure .4- Typical Reverse Characteristics



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.150	NOM	80.01	NOM
B	1.565	1.585	39.75	40.26
C	.700	.800	17.78	20.32
E	.119	.132	3.02	3.35
F	1.327	REF	33.72	REF
G	3.55	3.65	90.17	92.71
H	----	.73	----	18.30
J	1/4-20 UNC FULL			
K	.472	.511	12	13
M	.275	.295	6.99	7.49
N	2.38	2.46	60.5	62.5