



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Silicon Power Schottky Diode

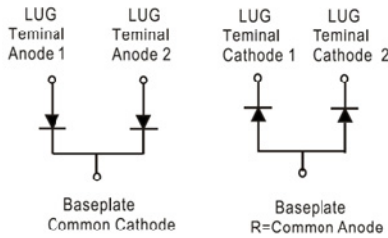
$V_{RRM} = 20\text{ V} - 40\text{ V}$

$I_{F(AV)} = 500\text{ A}$

### Features

- High Surge Capability
- Types from 20 V to 40 V  $V_R$
- Not ESD Sensitive

TO-244AB Package



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

Parameter	Symbol	Conditions	MBRF50020(R)	MBRF50030(R)	MBRF50035(R)	MBRF50040(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
Operating temperature	$T_j$		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	MBRF50020(R)	MBRF50030(R)	MBRF50035(R)	MBRF50040(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 125\text{ }^\circ\text{C}$	500	500	500	500	A
Peak forward surge current (per leg)	$I_{FSM}$	$t_p = 8.3\text{ ms, half sine}$	3500	3500	3500	3500	A
Maximum forward voltage (per leg)	$V_F$	$I_{FM} = 250\text{ A, } T_j = 25\text{ }^\circ\text{C}$	0.75	0.75	0.75	0.75	V
Reverse current at rated DC blocking voltage (per leg)	$I_R$	$T_j = 25\text{ }^\circ\text{C}$	1	1	1	1	mA
		$T_j = 100\text{ }^\circ\text{C}$	10	10	10		
		$T_j = 150\text{ }^\circ\text{C}$	50	50	50		

### Thermal characteristics

Thermal resistance, junction-case (per leg)	$R_{\theta JC}$		0.30	0.30	0.30	0.30	$^\circ\text{C/W}$
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Figure .1- Typical Forward Characteristics

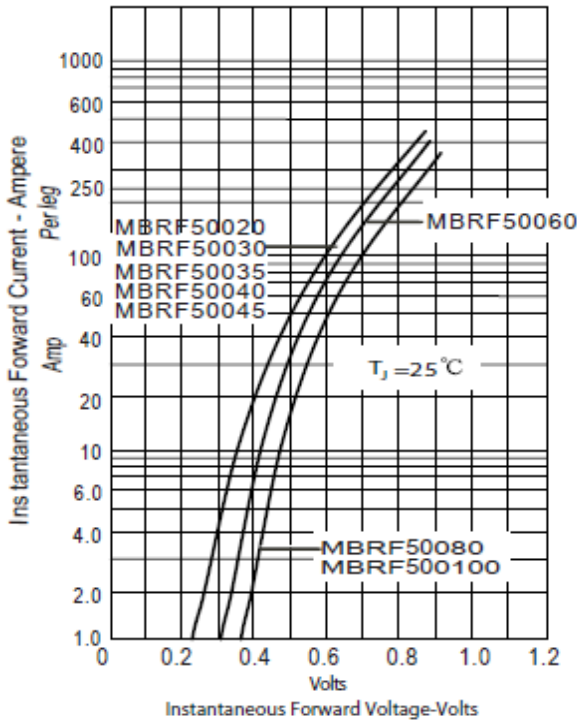


Figure .2- Forward Derating Curve

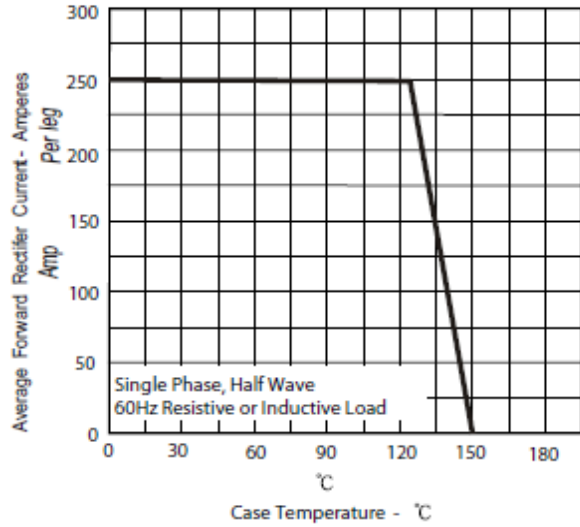


Figure.3-Peak Forward Surge Current

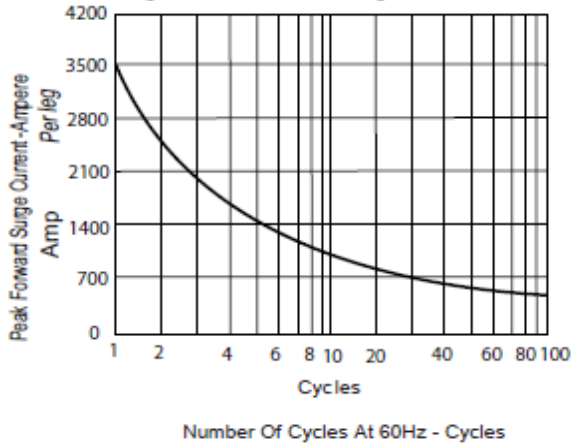
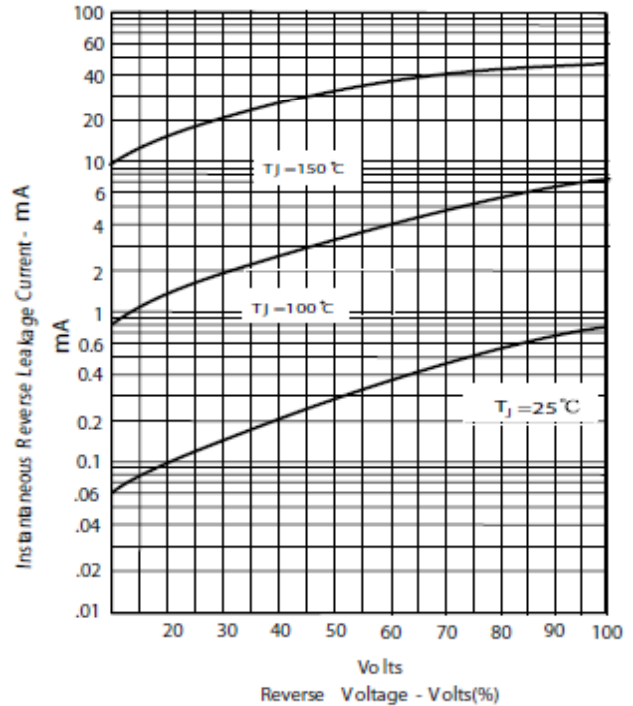


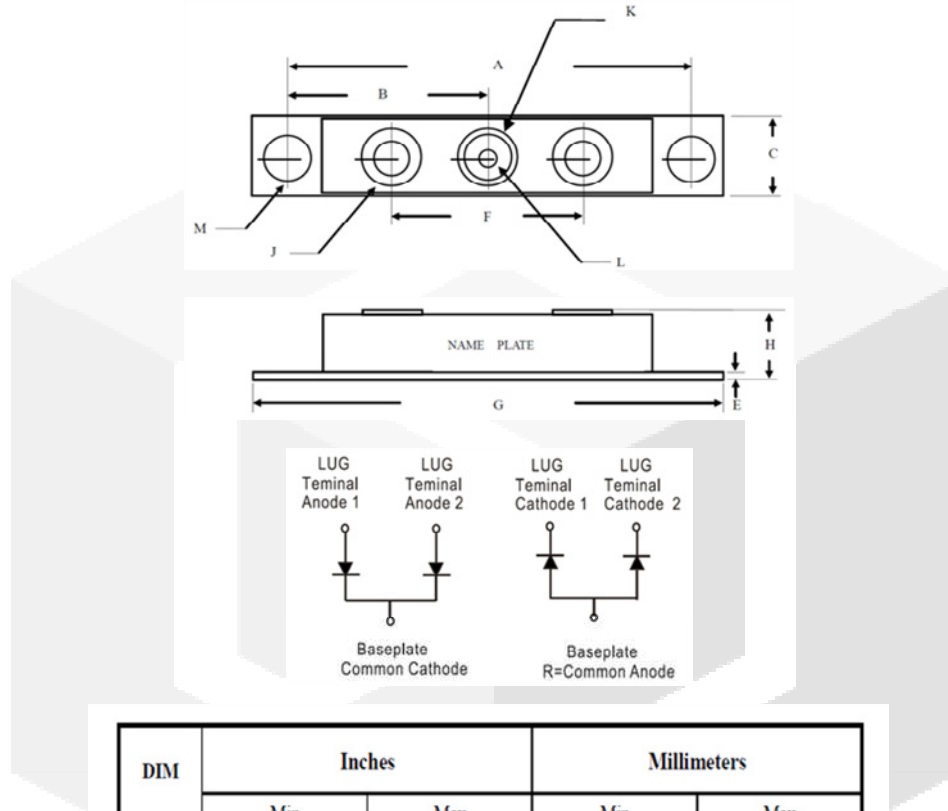
Figure .4- Typical Reverse Characteristics





## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.144	NOM	79.85	NOM
B	1.565	1.585	39.75	40.26
C	0.700	0.800	17.78	20.32
E	0.119	0.14	3.02	3.50
F	1.358	REF.	34.50	REF.
G	3.55	3.65	90.17	92.71
H	0.604	0.65	15.35	16.51
J	1/4-20 UNC FULL			
K	0.380	0.410	9.65	10.41
L	0.185	0.195	4.70	4.95
M	0.275	0.295	6.99	7.49