Silicon Power Schottky Diode

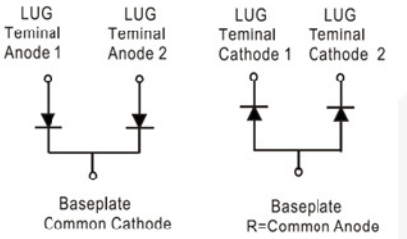
V_{RRM} = 45 V - 100 V

$I_{F(AV)}$ = 300 A

Features

- High Surge Capability
- Types from 45 V to 100 V V_{RRM}
- Not ESD Sensitive

TO-244AB Package





RoHS COMPLIANT

REACH COMPLIANCE

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

Parameter	Symbol	Conditions	MBRF30045(R)	MBRF30060(R)	MBRF30080(R)	MBRF300100(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		45	60	80	100	V
RMS reverse voltage	V_{RMS}		32	42	57	70	V
DC blocking voltage	V_{DC}		45	60	80	100	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	MBRF30045(R)	MBRF30060(R)	MBRF30080(R)	MBRF300100(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	T_C = 125 °C	300	300	300	300	A
Peak forward surge current (per leg)	I_{FSM}	t_p = 8.3 ms, half sine	2000	2000	2000	2000	A
Maximum forward voltage (per leg)	V_F	I_{FM} = 150 A, T_j = 25 °C	0.70	0.75	0.84	0.84	V
Reverse current at rated DC blocking voltage (per leg)	I_R	T_j = 25 °C T_j = 100 °C T_j = 150 °C	1 10 30	1 10 30	1 10 30	1 10 30	mA
Thermal characteristics							
Thermal resistance, junction-case (per leg)	$R_{\Theta JC}$		0.40	0.40	0.40	0.40	°C/W

Figure .1- Typical Forward Characteristics

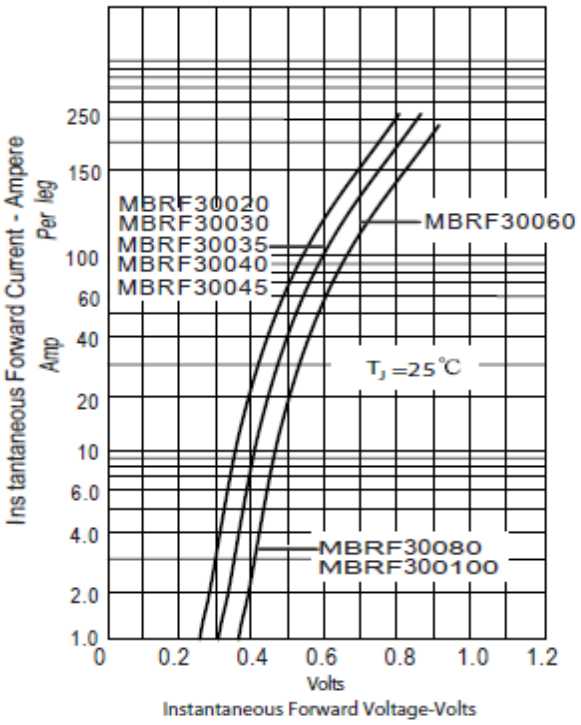


Figure .2- Forward Derating Curve

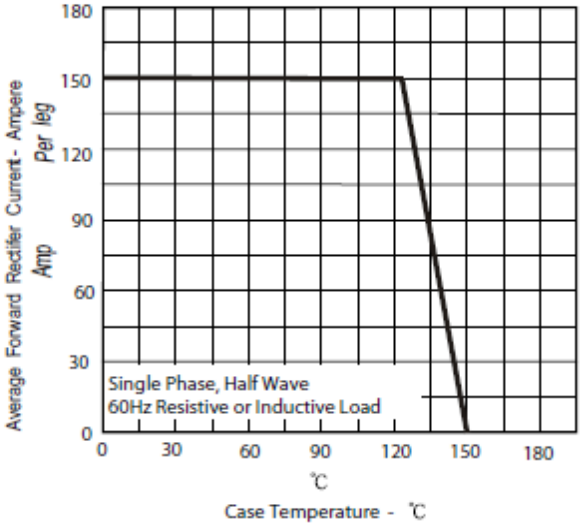


Figure .3-Peak Forward Surge Current

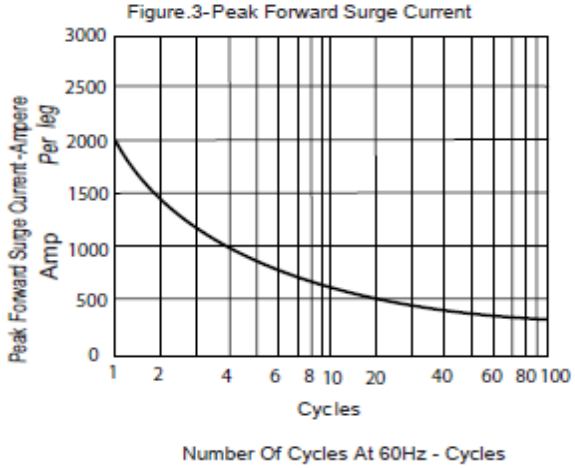
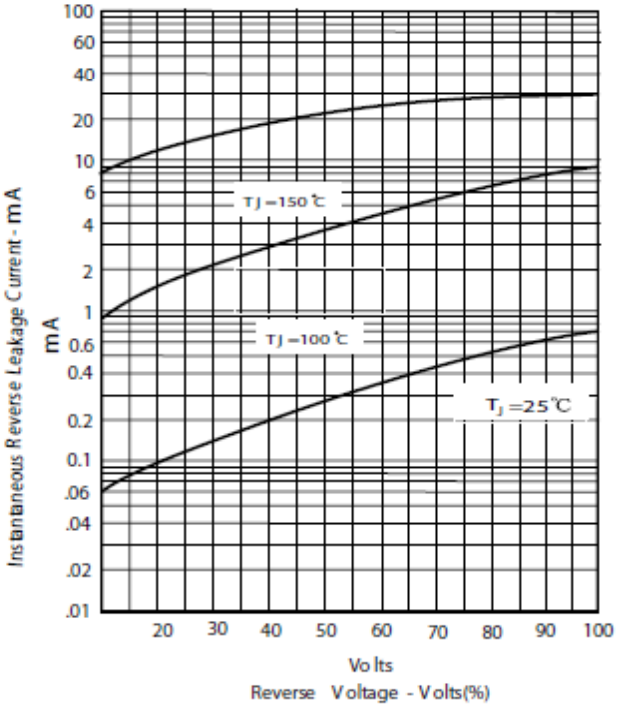
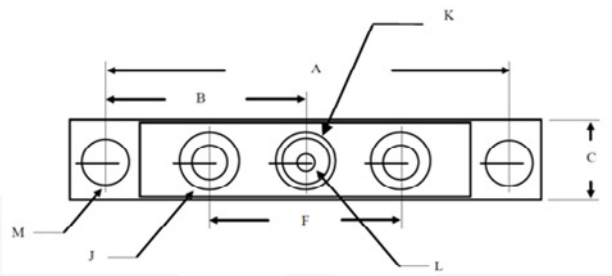


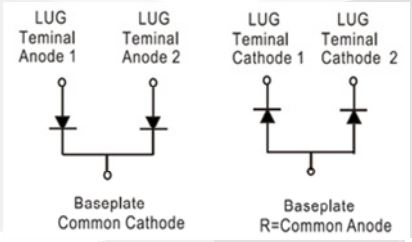
Figure .4- Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.





DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.144	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