

Low V_F Silicon Power Schottky Diode

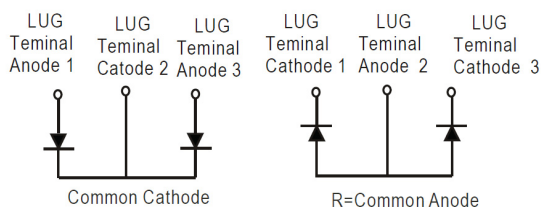
$$V_{RRM} = 45 \text{ V}$$

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

Features

- High Surge Capability
- Type 45 V V_{RRM}
- Isolation Type Package
- Electrically Isolated Base Plate
- Not ESD Sensitive

Three Tower Package



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

Parameter	Symbol	Conditions	MBRT30045(R)L	Unit
Maximum recurrent peak reverse voltage	V_{RRM}		45	V
Maximum RMS voltage	V_{RMS}		32	V
Maximum DC blocking voltage	V_{DC}		45	V
Operating temperature	T_j		-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	MBRT30045(R)L	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 100^\circ\text{C}$	300	A
Peak forward surge current (per leg)	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	2000	A
Maximum instantaneous forward voltage (per leg)	V_F	$I_{FM} = 150 \text{ A}$, $T_j = 25^\circ\text{C}$	0.60	V
Maximum instantaneous reverse current at rated DC blocking voltage (per leg)	I_R	$T_j = 25^\circ\text{C}$	5	mA
		$T_j = 100^\circ\text{C}$	250	

Thermal characteristics

Maximum thermal resistance, junction - case (per leg)	$R_{\theta JC}$	0.40	$^\circ\text{C/W}$
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Figure .1-Typical Forward Characteristics

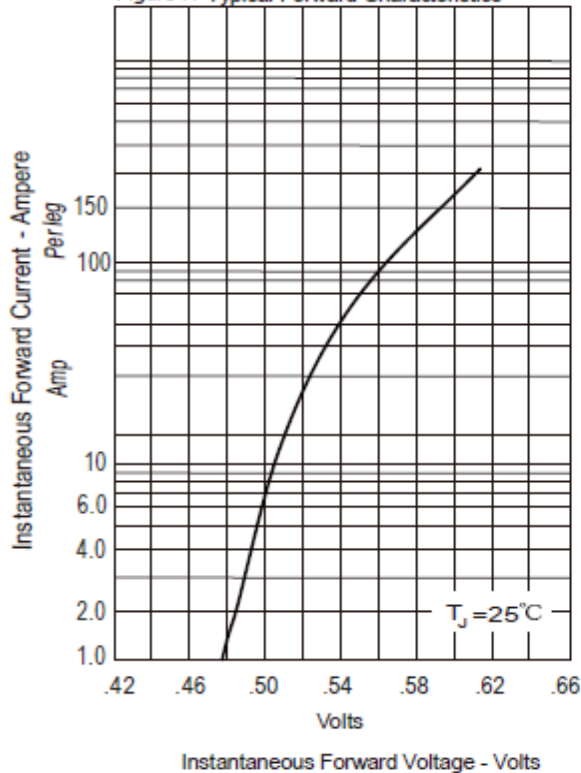


Figure .2- Forward Derating Curve

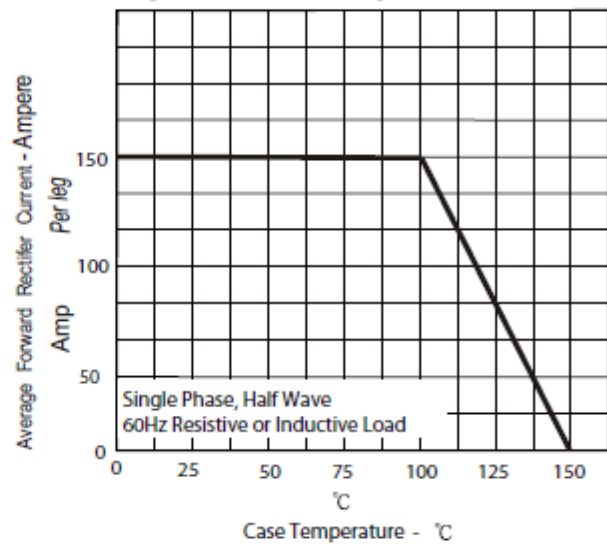


Figure.3-Peak Forward Surge Current

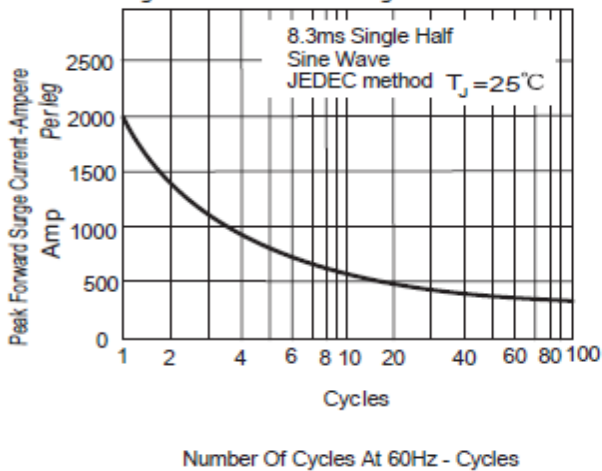
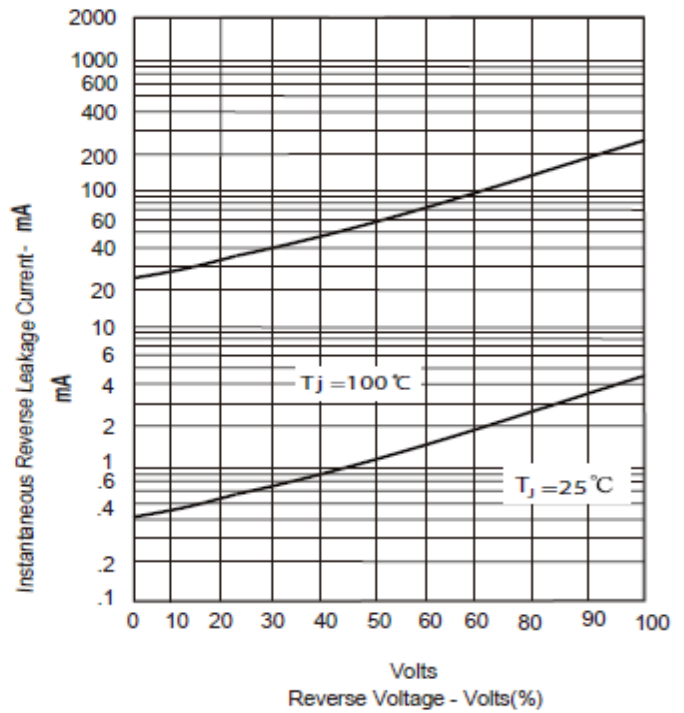
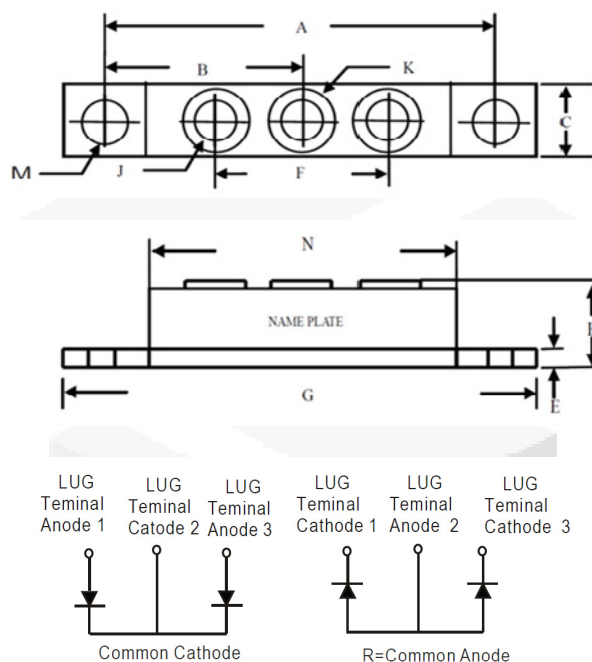


Figure .4-Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.150	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

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