

## Low $V_F$ Silicon Power Schottky Diode

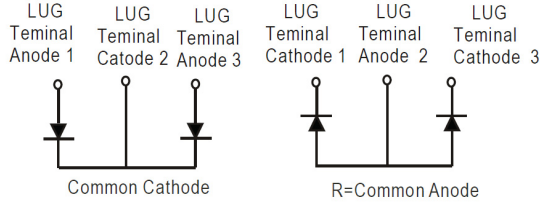
$V_{RRM} = 45\text{ V}$

$I_{F(AV)} = 400\text{ A}$

### Features

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

### Heavy Three Tower Package



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

Parameter	Symbol	Conditions	MBRTA40045(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 $T_j = 25\text{ }^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MBRTA40045(R)L	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 100\text{ }^\circ\text{C}$	400	A
Peak forward surge current (per leg)	$I_{FSM}$	$t_p = 8.3\text{ ms}$ , half sine	3000	A
Maximum instantaneous forward voltage (per leg)	$V_F$	$I_{FM} = 200\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	0.60	V
Maximum instantaneous reverse current at rated DC blocking voltage (per leg)	$I_R$	$T_j = 25\text{ }^\circ\text{C}$	5	mA
		$T_j = 100\text{ }^\circ\text{C}$	350	

### Thermal characteristics

Maximum thermal resistance, junction - case (per leg)	$R_{\theta JC}$		0.35	$^\circ\text{C/W}$
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Figure .1-Typical Forward Characteristics

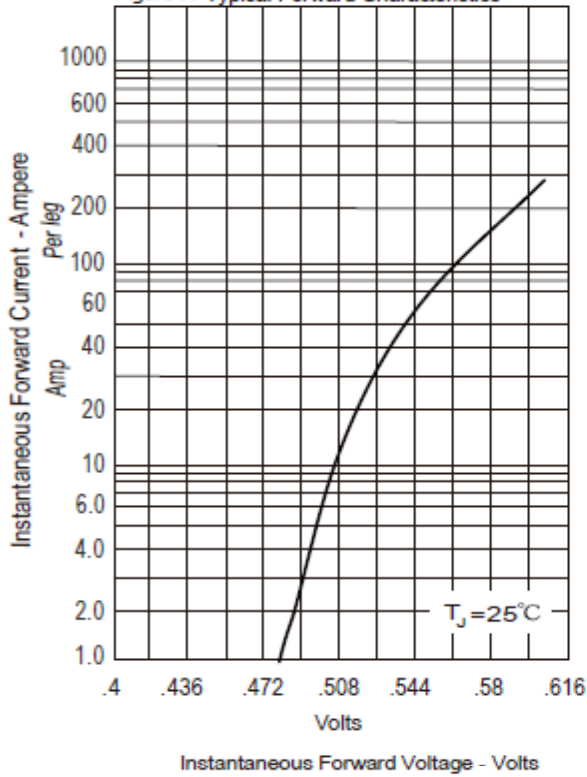


Figure .2- Forward Derating Curve

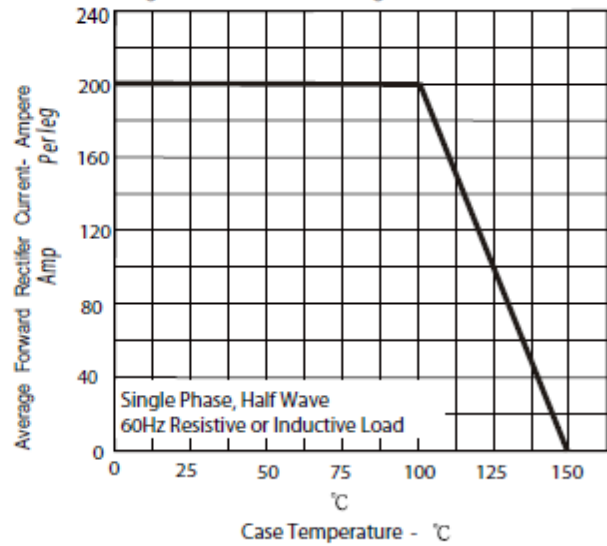


Figure .4-Typical Reverse Characteristics

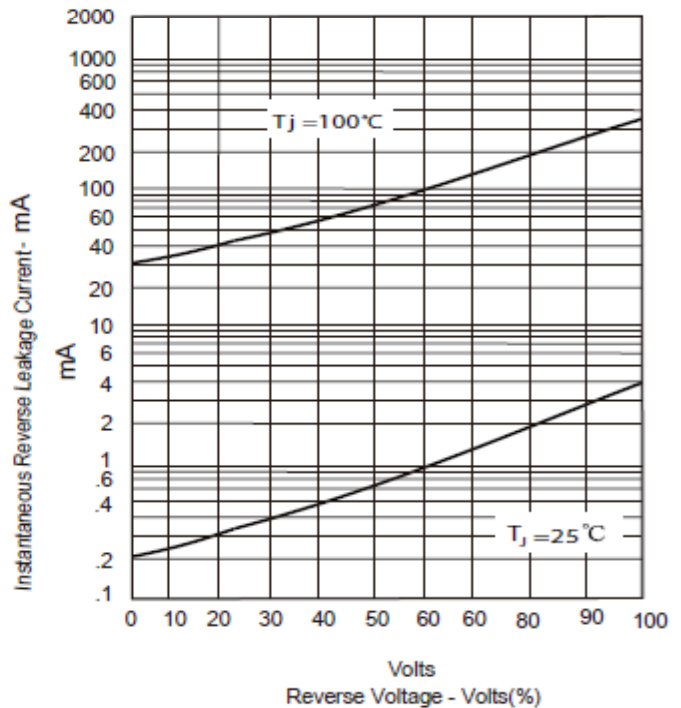
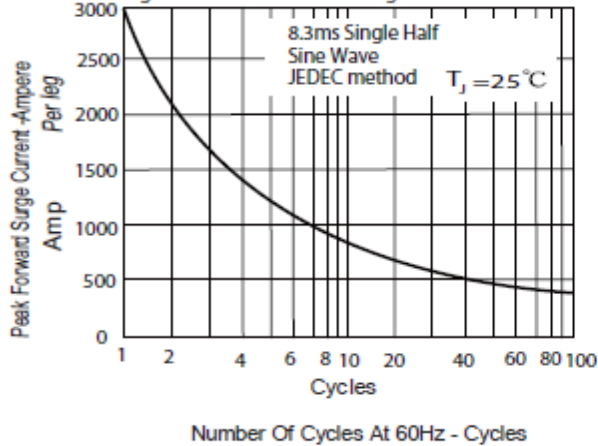
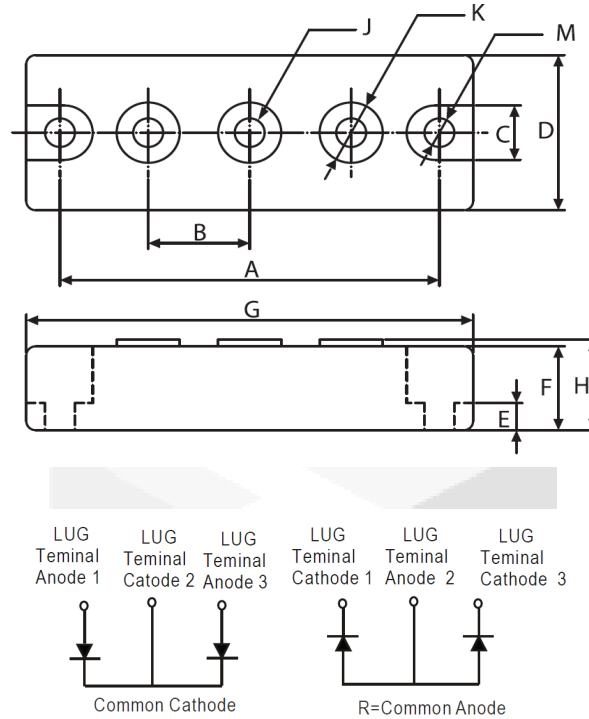


Figure .3- Peak Forward Surge Current



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.



DIMENSIONS				
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	3.150	NOM	80.01	NOM
B	.872	.892	22.15	22.65
C	.465	.479	11.82	12.18
D	1.337	1.356	33.95	34.45
E	.230	.234	5.84	6.16
F	.725	REF	18.42	REF
G	3.668	3.768	93.17	95.71
H	----	.791	---	20.10
J	1/4 - 20 UNC FULL			
K	.509	.538	12.92	13.68
M	.238	.258	6.05	6.55