

Silicon Power Schottky Diode

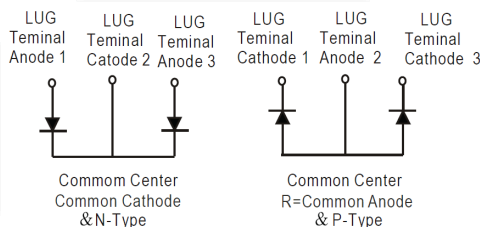
$$V_{RRM} = 20 \text{ V} - 40 \text{ V}$$

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

Features

- High Surge Capability
- Types from 20 V to 40 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	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
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 $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	MBRT40020(R)	MBRT40030(R)	MBRT40035(R)	MBRT40040(R)	Unit
Average forward current (per pkg)	I _{F(AV)}	T _C = 125 °C	400	400	400	400	A
Peak forward surge current (per leg)	I _{FSM}	t _p = 8.3 ms, half sine	3000	3000	3000	3000	A
Maximum instantaneous forward voltage (per leg)	V _F	I _{FM} = 200 A, T _j = 25 °C	0.70	0.70	0.70	0.70	V
Maximum Instantaneous reverse current at rated DC blocking voltage (per leg)	I _R	T _j = 25 °C	1	1	1	1	mA
		T _j = 100 °C	10	10	10	10	
		T _j = 150 °C	50	50	50	50	
Thermal characteristics							
Maximum thermal resistance, junction - case (per leg)	R _{ΘJC}		0.35	0.35	0.35	0.35	°C/W

Figure.1-Typical Forward Characteristics

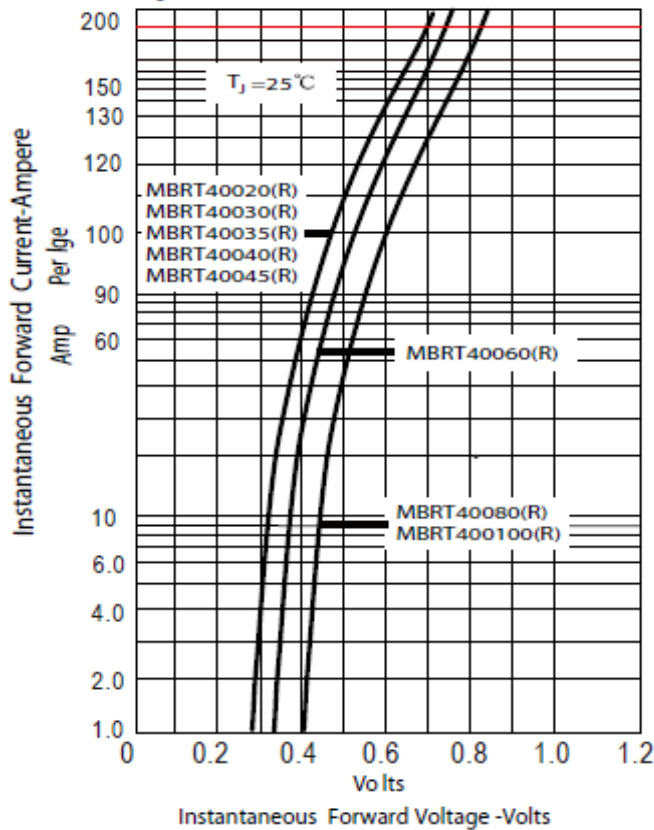


Figure.2-Forward Derating Curve

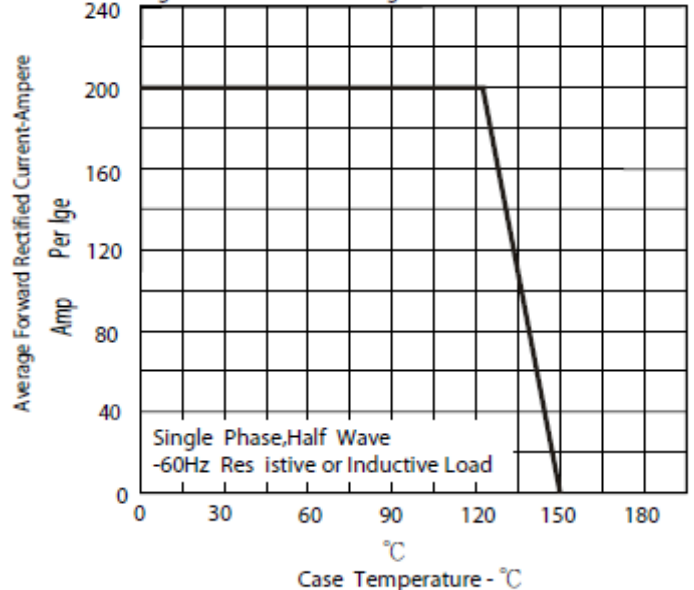


Figure.3-Peak Forward Surge Current

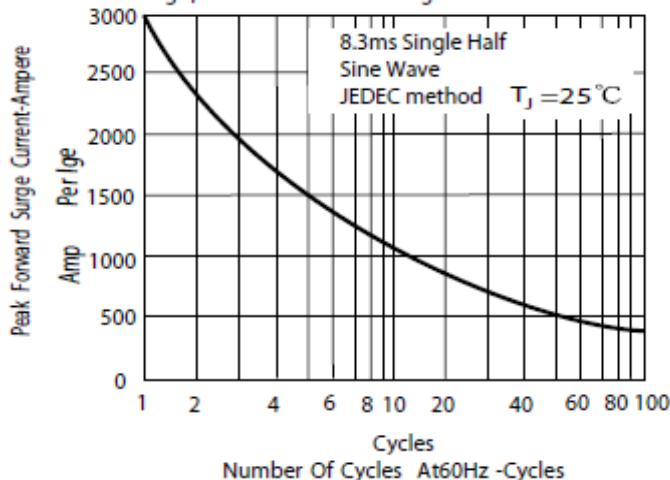
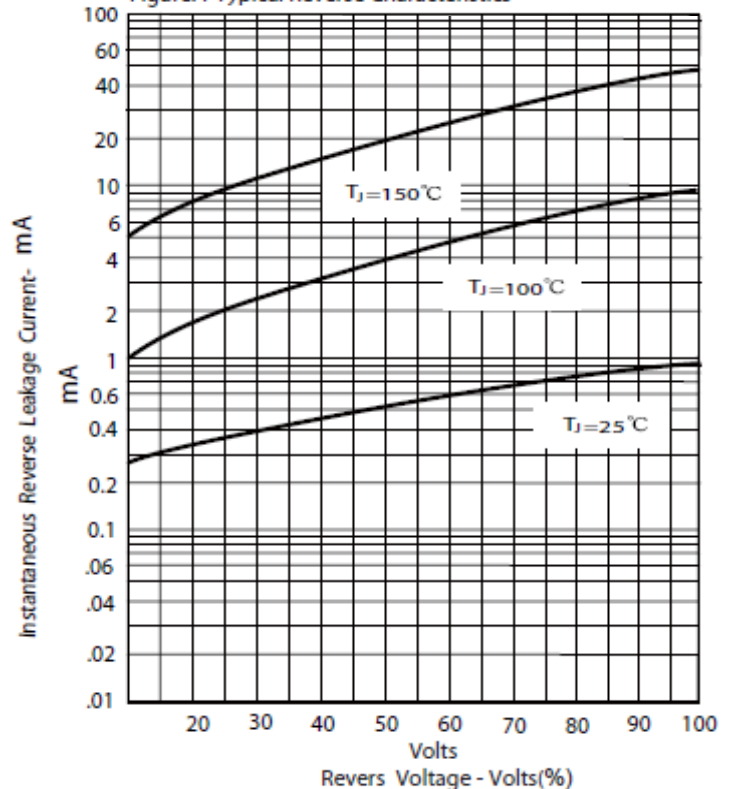
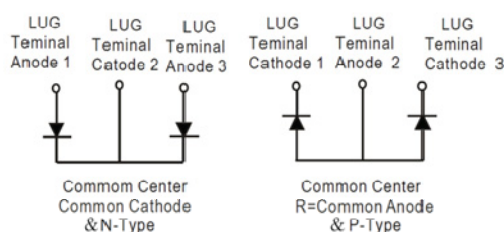
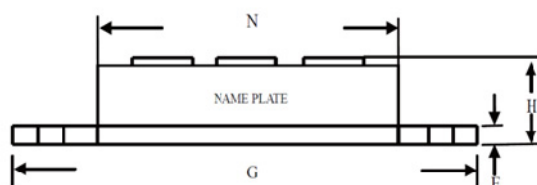
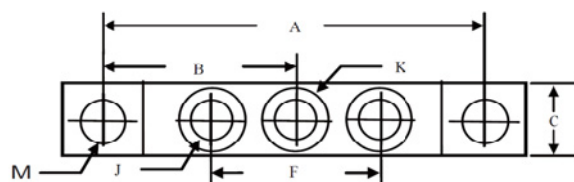


Figure.4-Typical Reverse Characteristics



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