

Silicon Power Schottky Diode

 $V_{RRM} = 20\text{ V} - 100\text{ V}$
 $I_F = 600\text{ A}$

Features

- High Surge Capability
- Types up to 100 V V_{RRM}
- Isolation Type Package

Heavy Three Tower Package



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

Parameter	Symbol	Conditions	MBRTA60045 (R)	MBRTA60060 (R)	MBRTA60080 (R)	MBRTA600100 (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
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	600	600	600	600	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	4000	4000	4000	4000	A
Operating temperature	T_j		-40 to 150	-40 to 150	-40 to 150	-40 to 150	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	-40 to 175	°C

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

Parameter	Symbol	Conditions	MBRTA60045 (R)	MBRTA60060(R)	MBRTA60080 (R)	MBRTA600100 (R)	Unit
Diode forward voltage	V_F	$I_F = 300\text{ A}$, $T_j = 25\text{ °C}$	0.75	0.8	0.88	0.88	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ °C}$	1	1	1	1	mA
		$V_R = 20\text{ V}$, $T_j = 125\text{ °C}$	20	20	20	20	

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.12	0.12	0.12	0.12	°C/W
-------------------------------------	------------	--	------	------	------	------	------

Figure .1-Typical Forward Characteristics

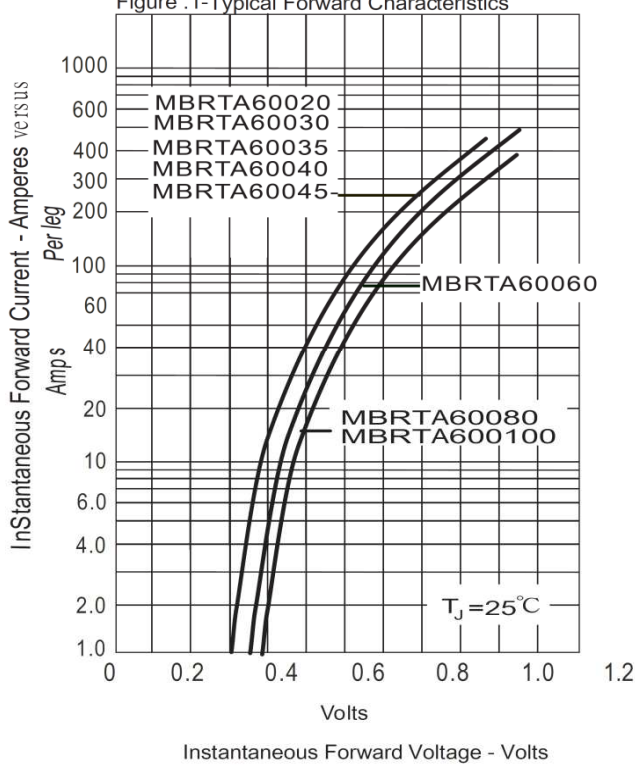


Figure .2- Forward Derating Curve

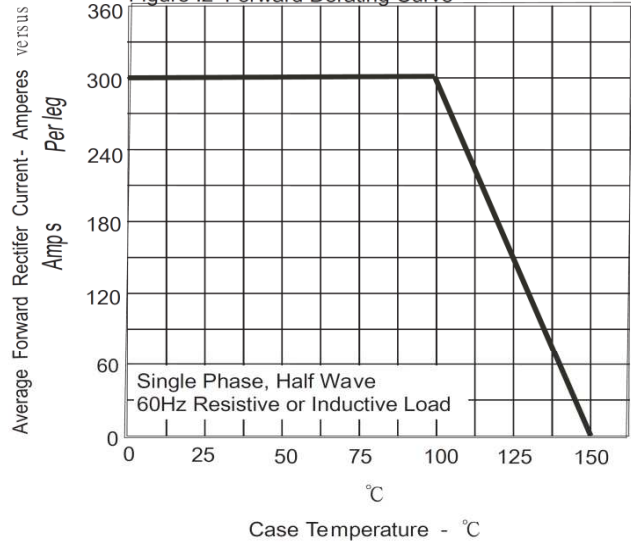


Figure.3-Peak Forward Surge Current

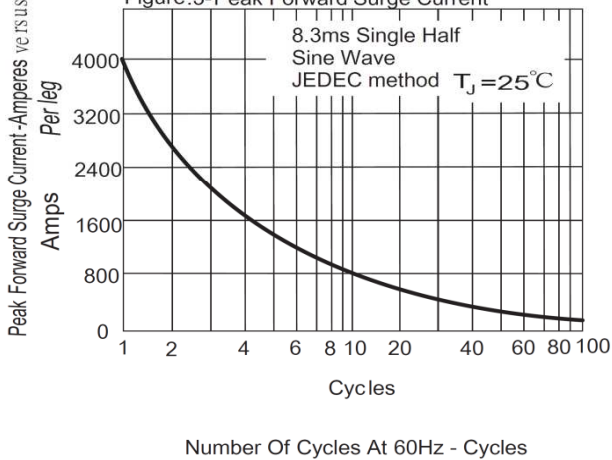
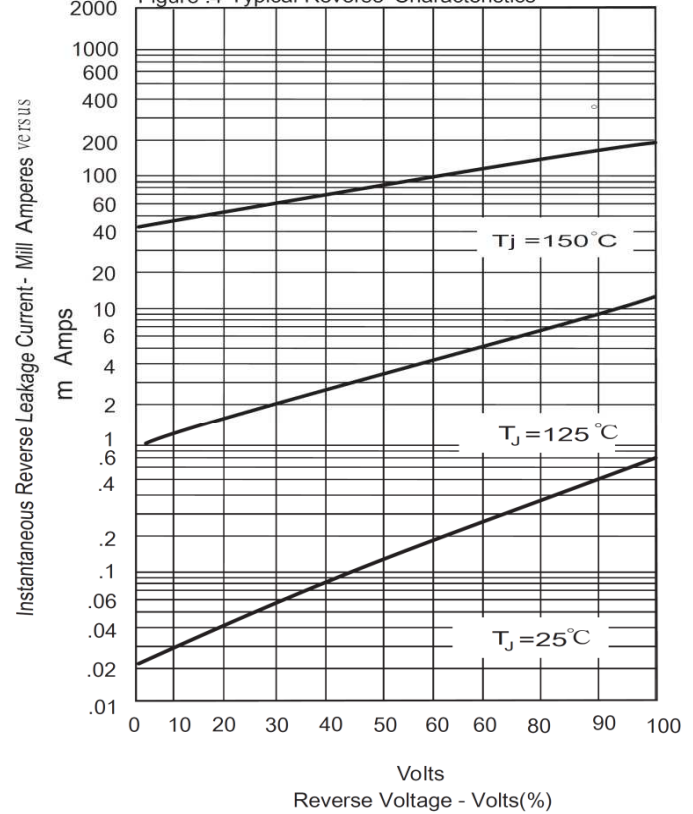
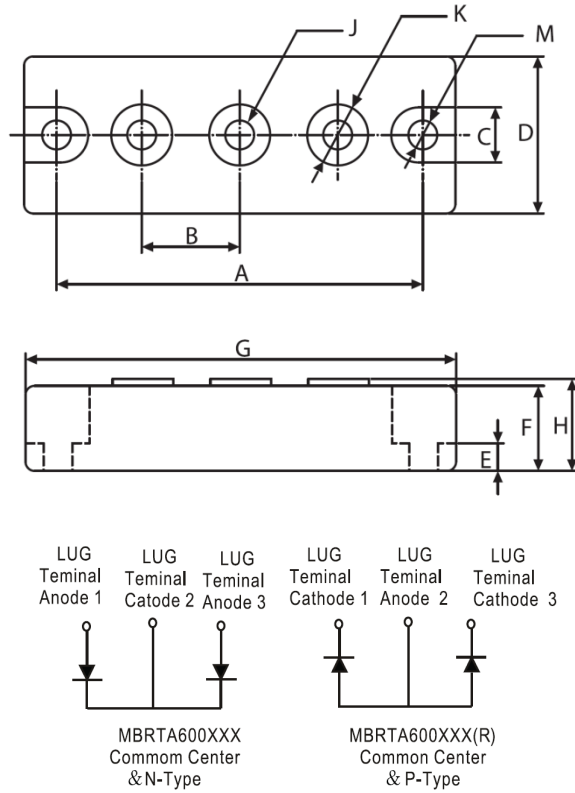


Figure .4-Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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	Ø
M	.238	.258	6.05	6.55	Ø