

Silicon Super Fast Recovery Diode

$V_{RRM} = 200\text{ V} - 600\text{ V}$

$I_F = 500\text{ A}$

Features

- High Surge Capability
- Types up to 600 V V_{RRM}

Heavy Three Tower Package



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

Parameter	Symbol	Conditions	MURTA50020 (R)	MURTA50040 (R)	MURTA50060 (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		50	100	200	V
RMS reverse voltage	V_{RMS}		35	71	141	V
DC blocking voltage	V_{DC}		50	100	200	V
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	500	500	500	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	3800	3800	3800	A
Operating temperature	T_j		-40 to 175	-40 to 175	-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	-40 to 175	°C

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

Parameter	Symbol	Conditions	MURTA50020 (R)	MURTA50040 (R)	MURTA50060 (R)	Unit
Diode forward voltage	V _F	I _F = 250 A, T _j = 25 °C	1.3	1.5	1.7	V
Reverse current	I _R	V _R = 50 V, T _j = 25 °C	25	25	25	μA
		V _R = 50 V, T _j = 125 °C	5	5	5	mA
Recovery Time						
Maximum reverse recovery time	T _{RR}	I _F =0.5 A, I _R =1.0 A, I _{RR} = 0.25 A	150	200	250	nS
Thermal characteristics						
Thermal resistance, junction - case	R _{thJC}		0.12	0.12	0.12	°C/W

Figure .1- Typical Forward Characteristics

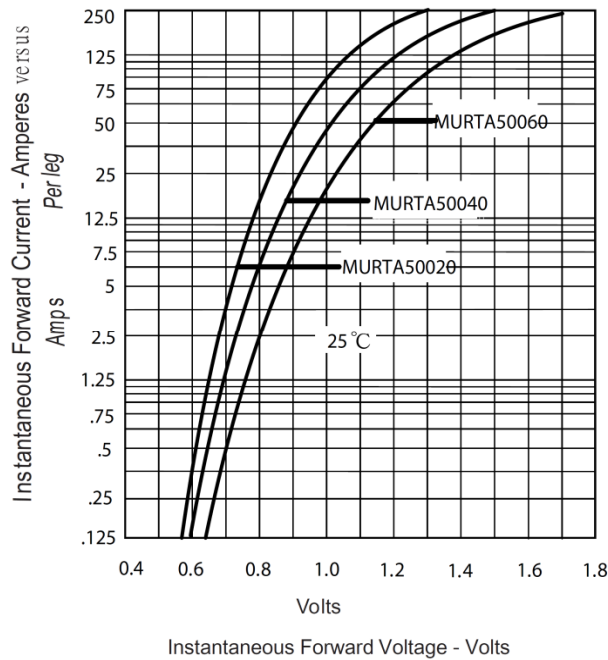


Figure .2- Forward Derating Curve

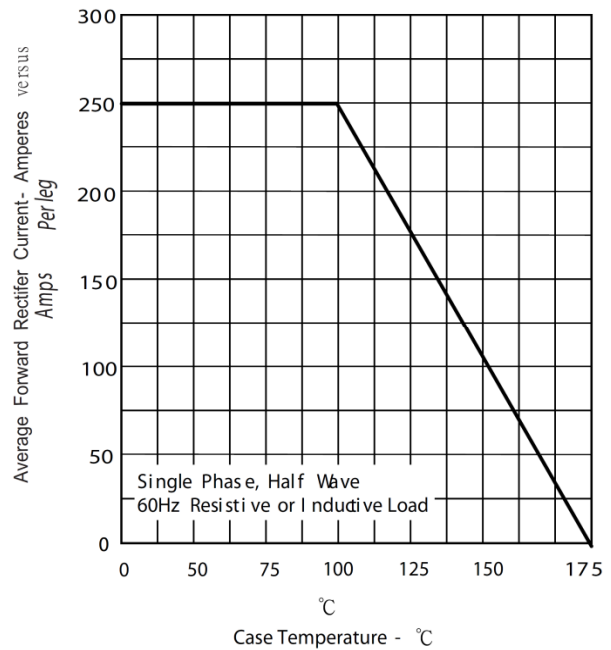


Figure.3-Peak Forward Surge Current

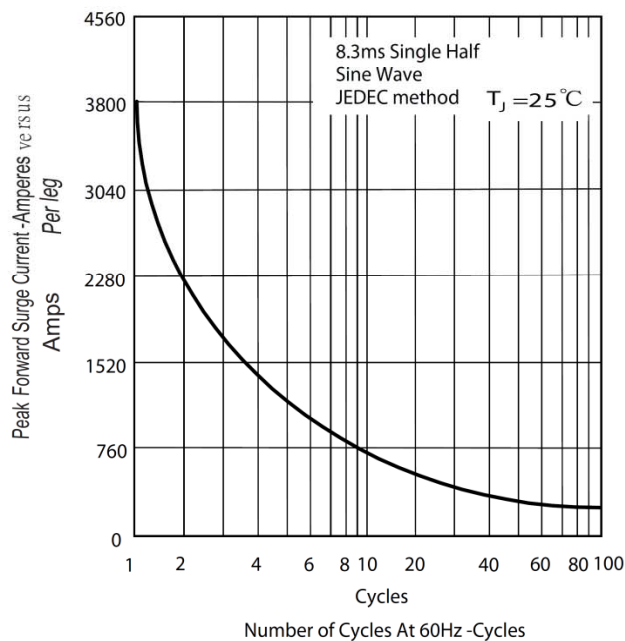
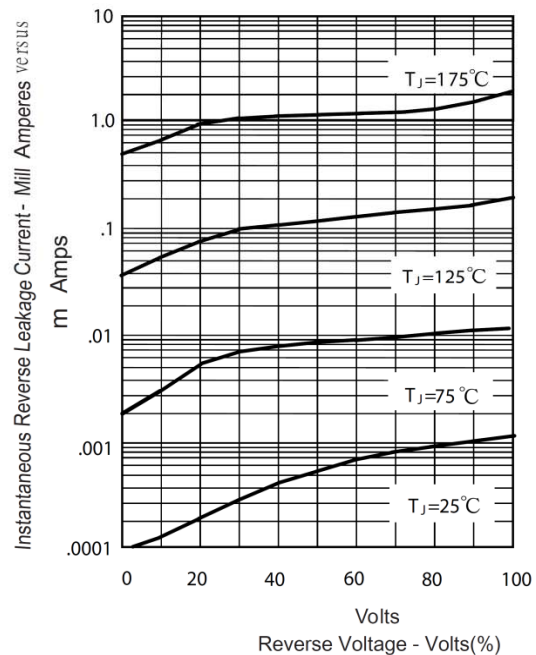
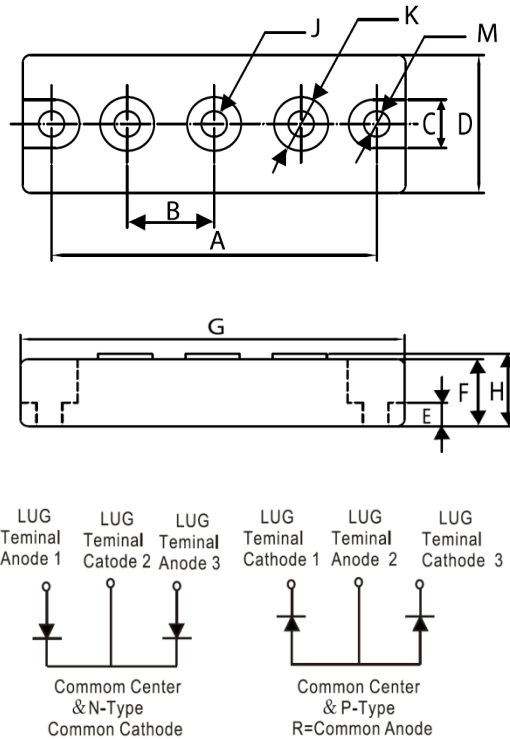


Figure .4-Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIMENSIONS				
DIM	Inches		Millimeters	
	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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[GeneSiC Semiconductor:](#)

[MURTA50020](#) [MURTA50020R](#) [MURTA50040](#) [MURTA50040R](#) [MURTA50060](#) [MURTA50060R](#)