

Silicon Super Fast Recovery Diode

 $V_{RRM} = 50\text{ V} - 600\text{ V}$
 $I_F = 400\text{ A}$

Features

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

Twin Tower Package


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

Parameter	Symbol	Conditions	MUR40040CT (R)	MUR40060CT (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		400	600	V
RMS reverse voltage	V_{RMS}		280	420	V
DC blocking voltage	V_{DC}		400	600	V
Continuous forward current	I_F	$T_C \leq 125\text{ °C}$	400	400	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	2400	2400	A
Operating temperature	T_j		-40 to 175	-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	-40 to 175	°C

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

Parameter	Symbol	Conditions	MUR40040CT (R)	MUR40060CT (R)	Unit
Diode forward voltage	V_F	$I_F = 125\text{ A}$, $T_j = 25\text{ °C}$	1.5	1.7	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$	25	25	μA
		$V_R = 50\text{ V}$, $T_j = 125\text{ °C}$	3	3	mA

Recovery Time

Maximum reverse recovery time	T_{RR}	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$	150	180	nS
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Thermal characteristics

Thermal resistance, junction	R_{thJC}		0.14	0.14	°C/W
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Figure .1- Typical Forward Characteristics

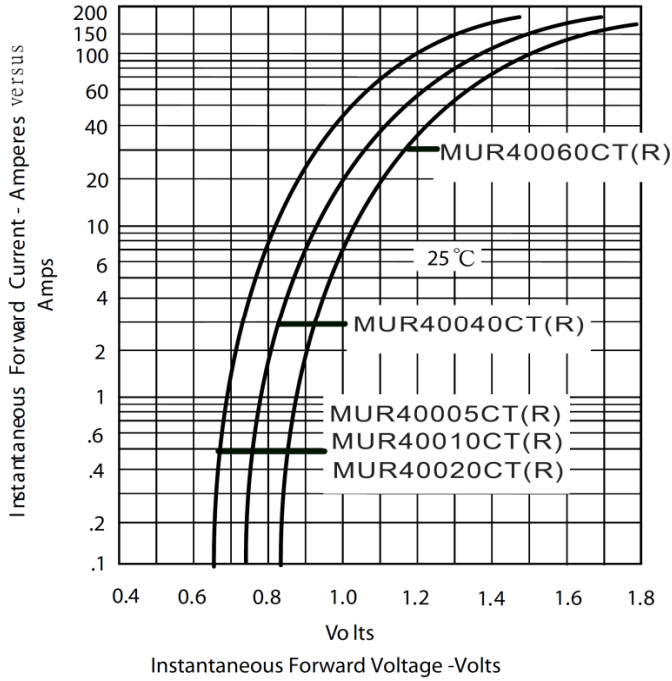


Figure .2- Forward Derating Curve

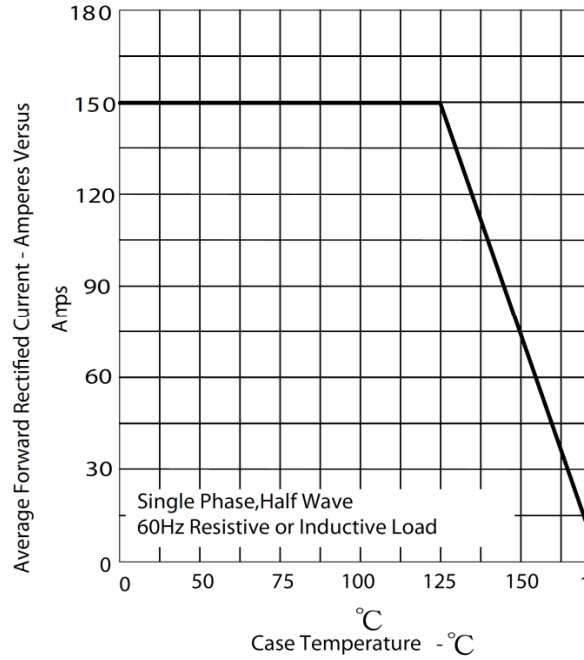


Figure.3- Peak Forward Surge Current

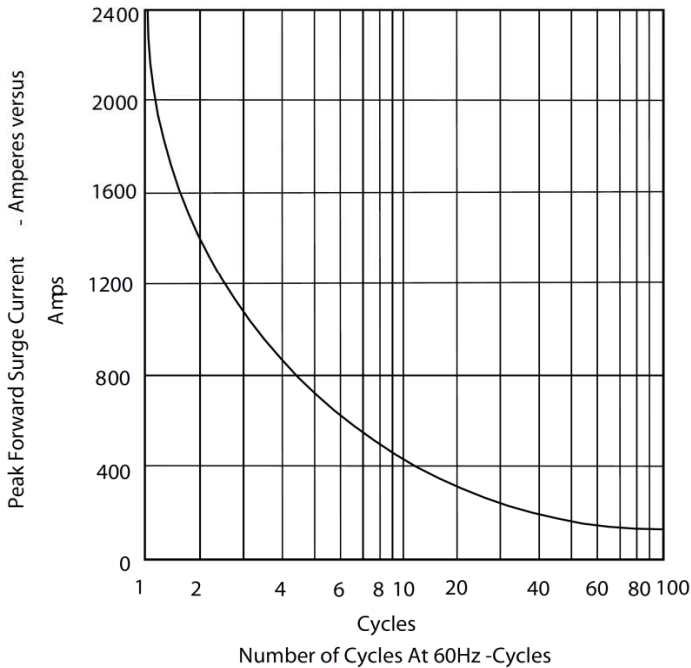
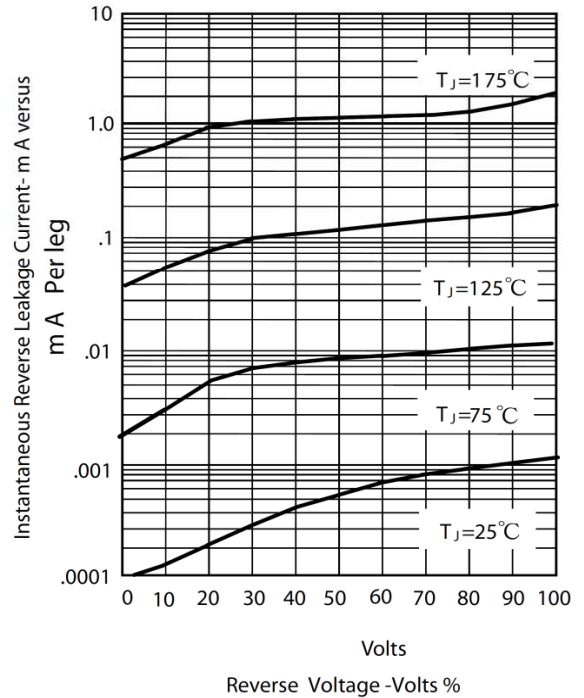
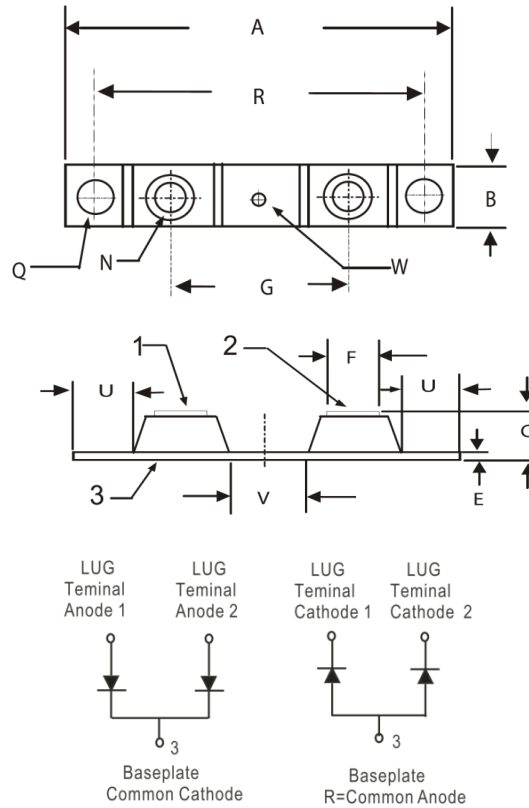


Figure.4- Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	—	3.630	—	92.40
B	0.700	0.800	17.78	20.32
C	—	0.650	—	16.51
E	0.130	0.141	3.30	3.60
F	0.482	0.490	12.25	12.45
G	1.368	BSC	34.75	BSC
N	1/4-20 UNC FULL			
Q	0.275	0.290	6.99	7.37
R	3.150	BSC	80.01	BSC
U	0.600	—	15.24	—
V	0.312	0.370	7.92	9.40
W	0.180	0.195	4.57	4.95