Silicon Super Fast Recovery Diode

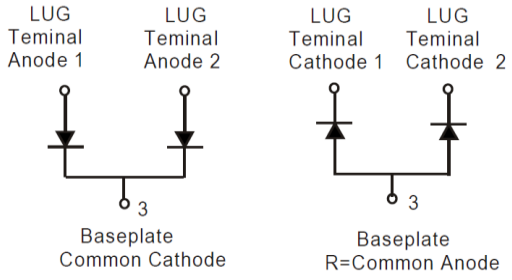
V_{RRM} = 50 V - 200 V

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

Features

- High Surge Capability
- Types from 50 V to 200 V V_{RRM}
- Not ESD Sensitive

Twin Tower Package





RoHS COMPLIANT

REACH COMPLIANCE

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

Parameter	Symbol	Conditions	MUR40005CT(R)	MUR40010CT(R)	MUR40020CT(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		50	100	200	V
RMS reverse voltage	V_{RMS}		35	70	140	V
DC blocking voltage	V_{DC}		50	100	200	V
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	MUR40005CT(R)	MUR40010CT(R)	MUR40020CT(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	T_C = 125 °C	400	400	400	A
Peak forward surge current (per leg)	I_{FSM}	t_p = 8.3 ms, half sine	3300	3300	3300	A
Maximum instantaneous forward voltage (per leg)	V_F	I_{FM} = 200 A, T_j = 25 °C	1.0	1.0	1.0	V
Maximum reverse current at rated DC blocking voltage (per leg)	I_R	T_j = 25 °C	25	25	25	µA
		T_j = 125 °C	3	3	3	mA
Maximum reverse recovery time (per leg)	T_{rr}	I_F=0.5 A, I_R=1.0 A, I_{RR}= 0.25 A	150	150	150	nS
Thermal characteristics						
Maximum thermal resistance, junction - case (per leg)	$R_{\Theta JC}$		0.35	0.35	0.35	°C/W

Figure .1- Typical Forward Characteristics

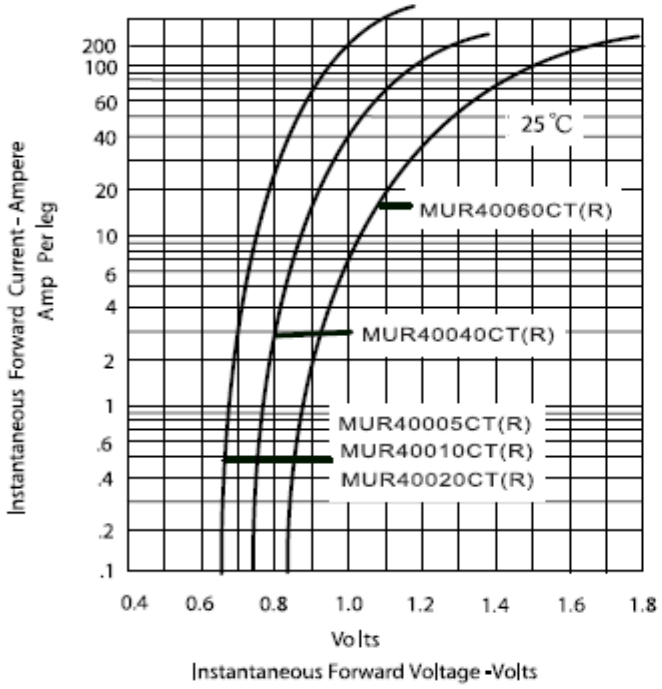


Figure .2- Forward Derating Curve

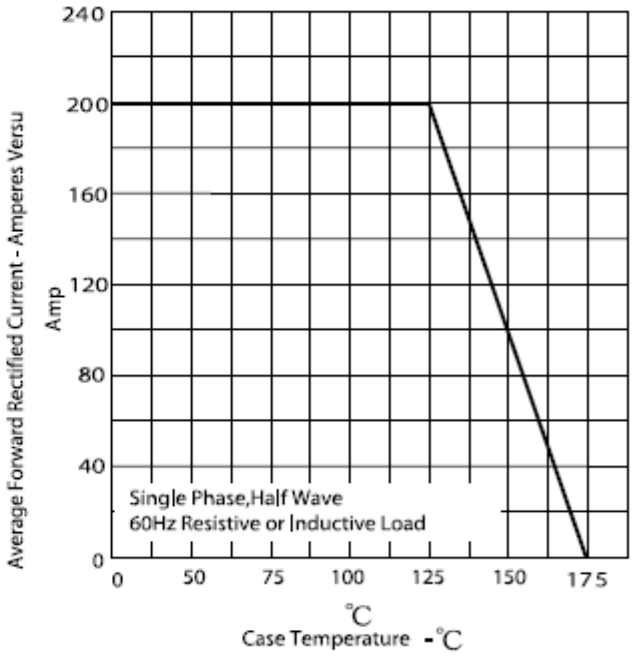


Figure.3- Peak Forward Surge Current

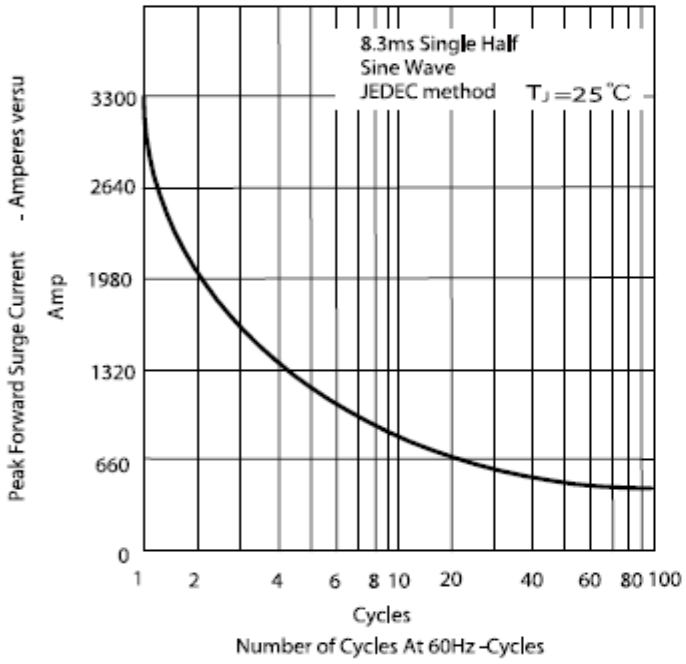
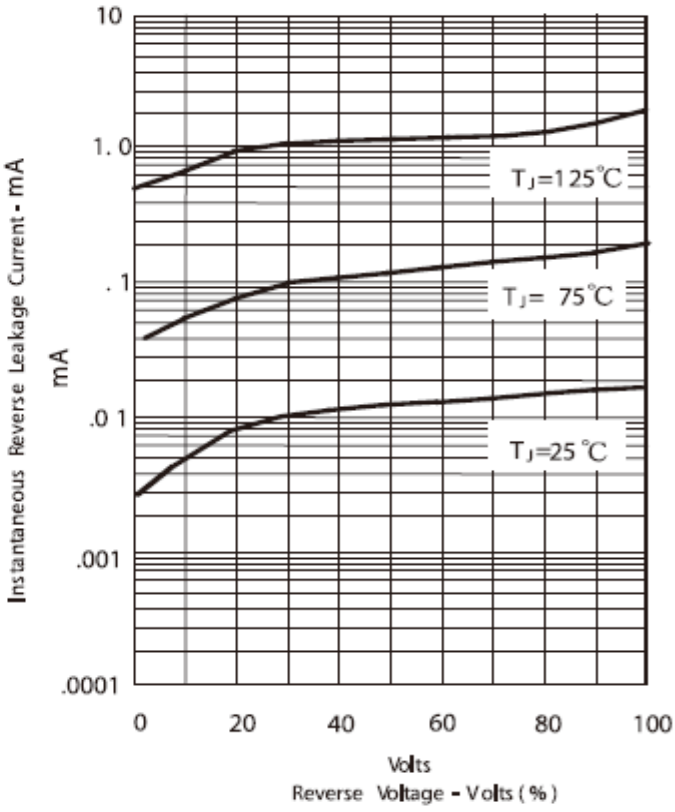
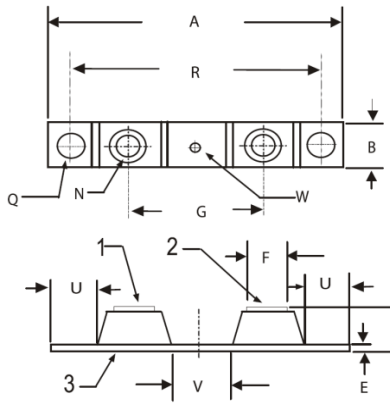


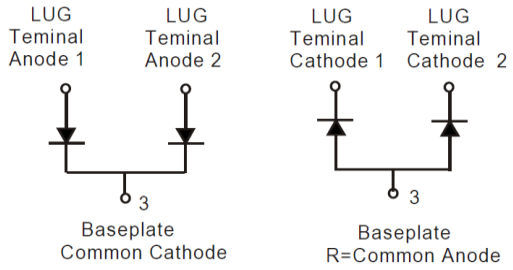
Figure .4 -Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.





DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	-----	3.630	-----	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