Silicon Super Fast Recovery Diode

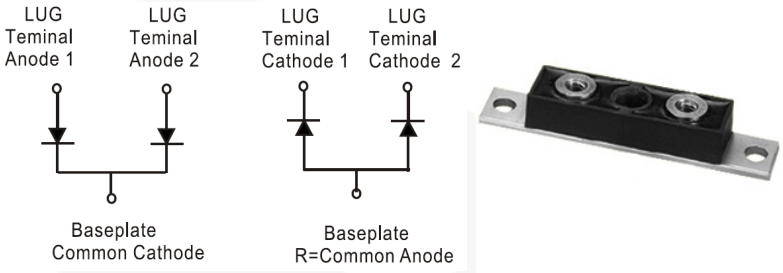
V_{RRM} = 50 V - 200 V

$I_{F(AV)}$ = 100 A

Features

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

TO-244 Package



RoHS COMPLIANT

REACH COMPLIANCE

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

Parameter	Symbol	Conditions	MURF10005(R)	MURF10010(R)	MURF10020(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	MURF10005(R)	MURF10010(R)	MURF10020(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	T_C = 140 °C	100	100	100	A
Peak forward surge current (per leg)	I_{FSM}	t_p = 8.3 ms, half sine	1500	1500	1500	A
Maximum instantaneous forward voltage (per leg)	V_F	I_{FM} = 50 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	75	75	75	nS
Thermal characteristics						
Maximum thermal resistance, junction - case (per leg)	$R_{\Theta JC}$		1.00	1.00	1.00	°C/W

Figure .1- Typical Forward Characteristics

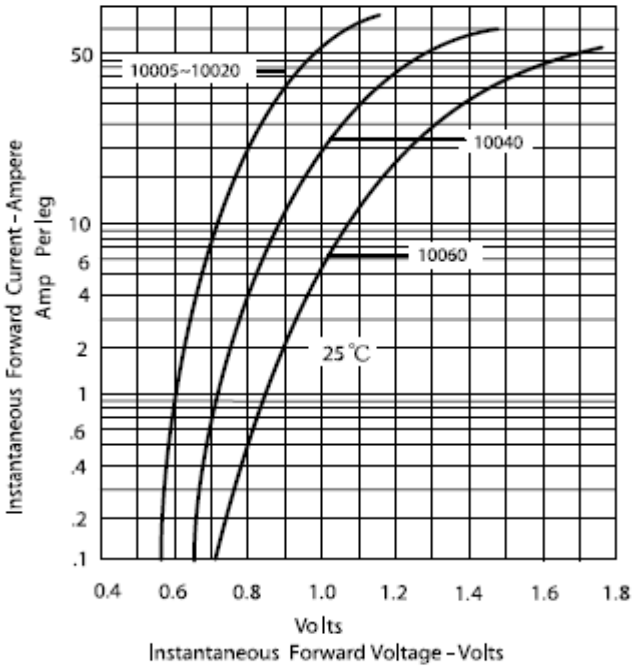


Figure .2- Forward Derating Curve

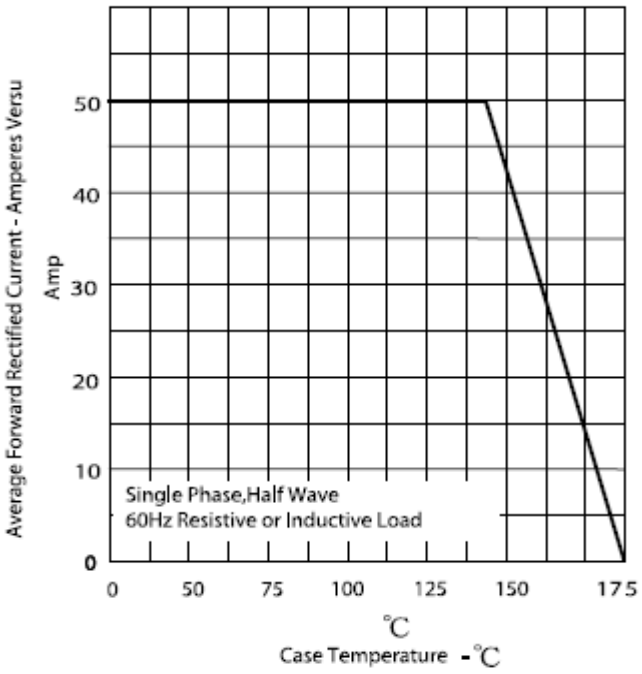


Figure.3- Peak Forward Surge Current

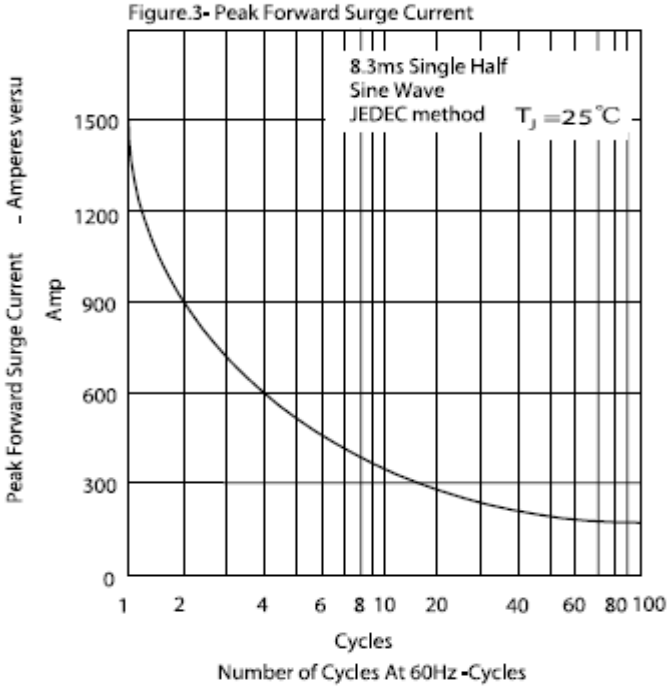
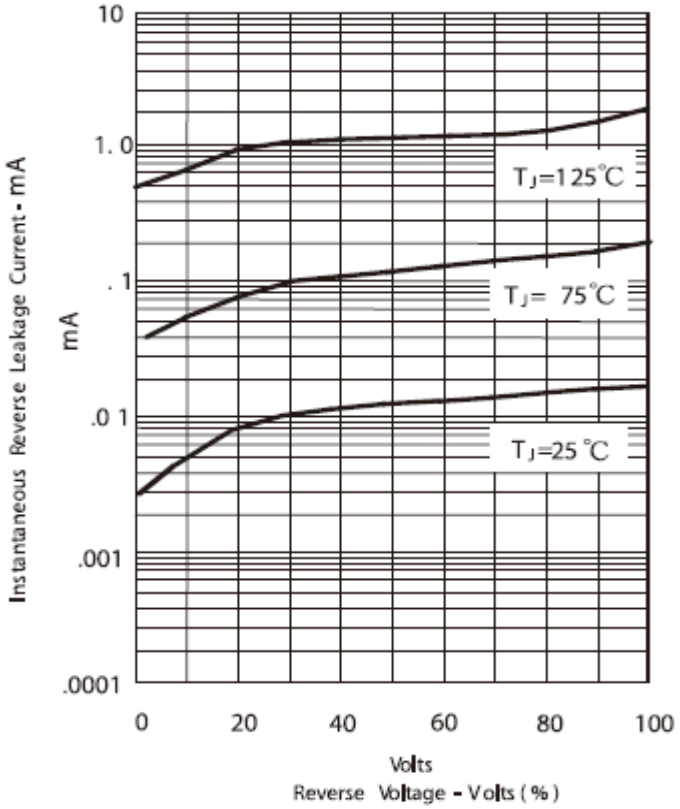
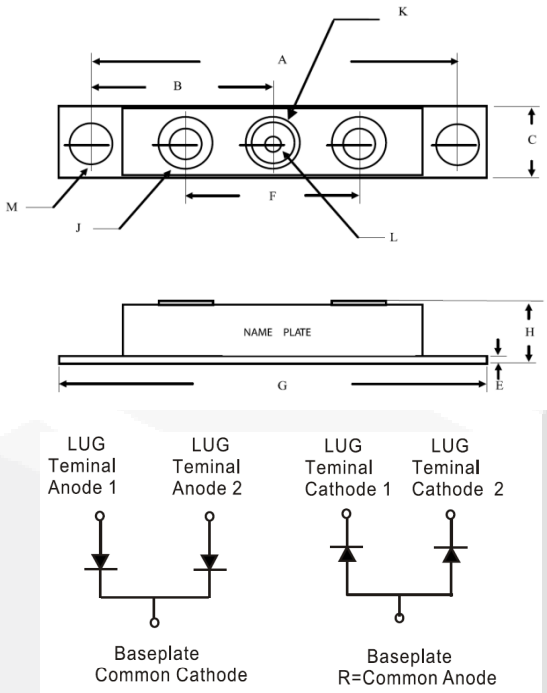


Figure .4 -Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.144	NOM	79.85	NOM
B	1.565	1.585	39.75	40.26
C	0.700	0.800	17.78	20.32
E	0.119	0.14	3.02	3.50
F	1.358	REF.	34.50	REF.
G	3.55	3.65	90.17	92.71
H	0.604	0.65	15.35	16.51
J	1/4-20 UNC FULL			
K	0.380	0.410	9.65	10.41
L	0.185	0.195	4.70	4.95
M	0.275	0.295	6.99	7.49