

Silicon Super Fast Recovery Diode

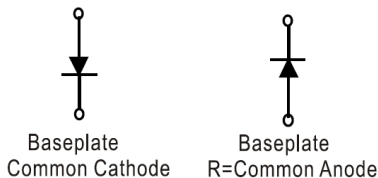
$V_{RRM} = 50 \text{ V} - 200 \text{ V}$

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

Features

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

D-67 Package



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

Parameter	Symbol	Conditions	MURH10005(R)	MURH10010(R)	MURH10020(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	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	MURH10005(R)	MURH10010(R)	MURH10020(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 140^\circ\text{C}$	100	100	100	A
Peak forward surge current	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	2000	2000	2000	A
Maximum instantaneous forward voltage	V_F	$I_{FM} = 100 \text{ A}$, $T_j = 25^\circ\text{C}$	1.0	1.0	1.0	V
Maximum reverse current at rated DC blocking voltage	I_R	$T_j = 25^\circ\text{C}$	25	25	25	μA
		$T_j = 125^\circ\text{C}$	3	3	3	mA
Maximum reverse recovery time	T_{rr}	$I_F = 0.5 \text{ A}$, $I_R = 1.0 \text{ A}$, $I_{RR} = 0.25 \text{ A}$	75	75	75	nS

Thermal characteristics

Maximum thermal resistance, junction - case	$R_{\theta JC}$		0.45	0.45	0.45	$^\circ\text{C/W}$
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Figure .1- Typical Forward Characteristics

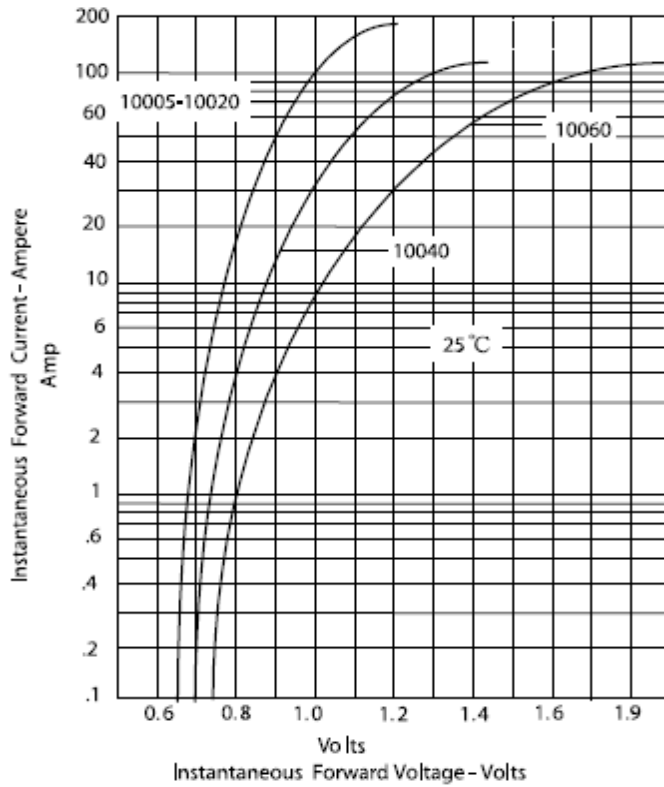


Figure .2- Forward Derating Curve

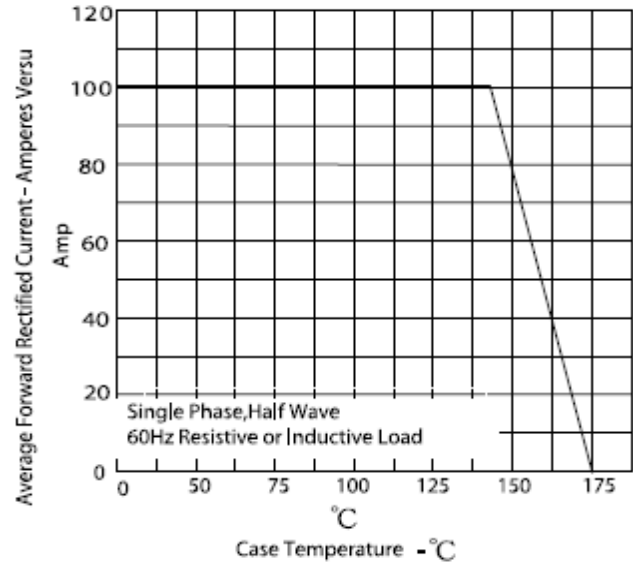


Figure .4- Typical Reverse Characteristics

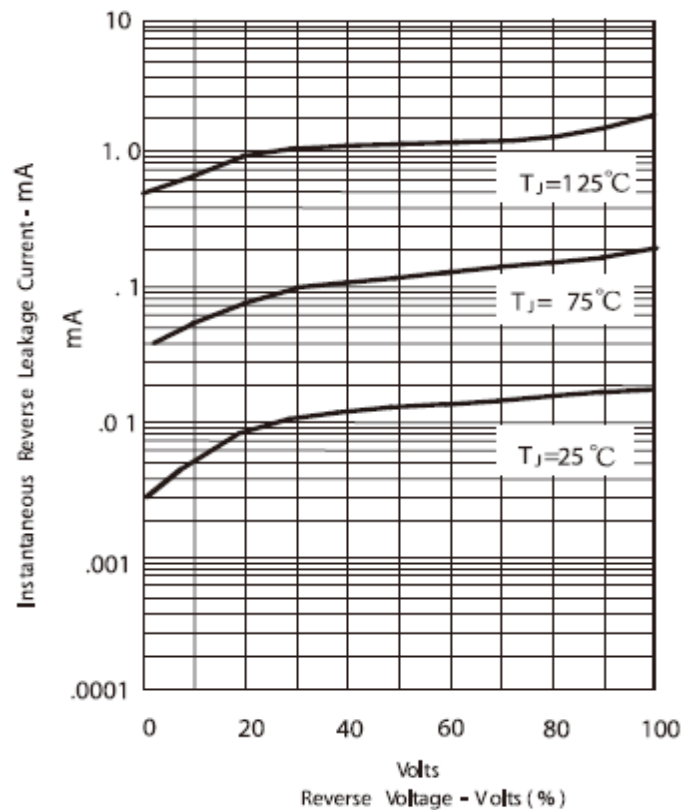
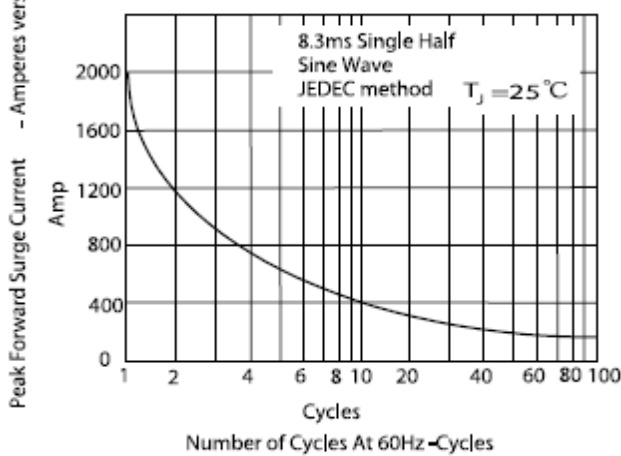
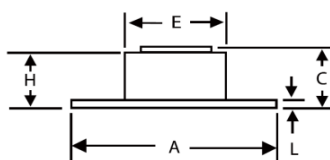
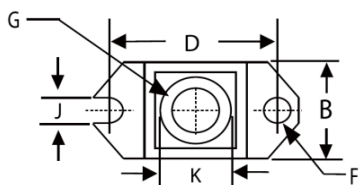


Figure.3- Peak Forward Surge Current



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



Baseplate
Common Cathode



Baseplate
R=Common Anode

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.515	1.560	38.48	39.62	
B	.725	.775	18.42	19.69	
C	.595	.625	15.11	15.88	
D	1.182	1.192	30.02	30.28	
E	.736	.744	18.70	18.90	
F	.152	.160	3.86	4.061	Ø
G	1/4 - 20		UNC		
H	.540	.580	13.72	14.73	
J	.156	.160	3.96	4.06	
K	.480	.492	12.20	12.50	Ø
L	.120	.130	3.05	3.30	

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