

## Silicon Super Fast Recovery Diode

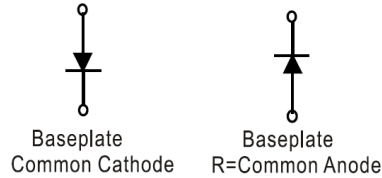
$V_{RRM} = 50\text{ V} - 200\text{ V}$

$I_{F(AV)} = 70\text{ A}$

### Features

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

D-67 Package



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

Parameter	Symbol	Conditions	MURH7005(R)	MURH7010(R)	MURH7020(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  $T_j = 25\text{ °C}$ , unless otherwise specified

Parameter	Symbol	Conditions	MURH7005(R)	MURH7010(R)	MURH7020(R)	Unit
Average forward current (per pkg)	$I_{F(AV)}$	$T_C = 125\text{ °C}$	70	70	70	A
Peak forward surge current	$I_{FSM}$	$t_p = 8.3\text{ ms}$ , half sine	1500	1500	1500	A
Maximum instantaneous forward voltage	$V_F$	$I_{FM} = 70\text{ A}$ , $T_j = 25\text{ °C}$	1.0	1.0	1.0	V
Maximum reverse current at rated DC blocking voltage	$I_R$	$T_j = 25\text{ °C}$	25	25	25	$\mu\text{A}$
		$T_j = 125\text{ °C}$	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	$R_{\theta JC}$		0.60	0.60	0.60	°C/W
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Figure .1- Typical Forward Characteristics

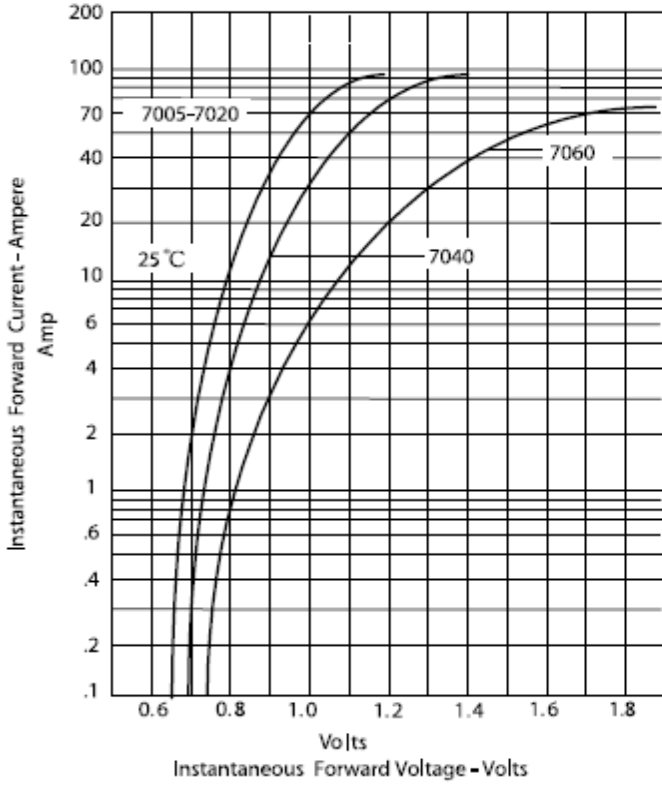


Figure .2- Forward Derating Curve

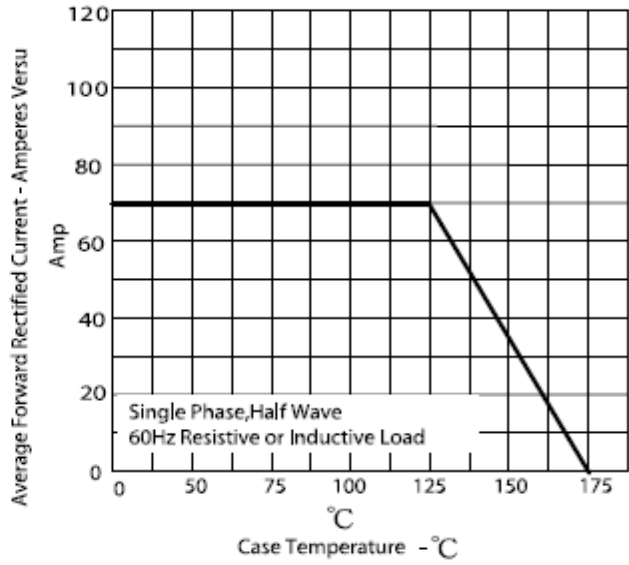


Figure .4-Typical Reverse Characteristics

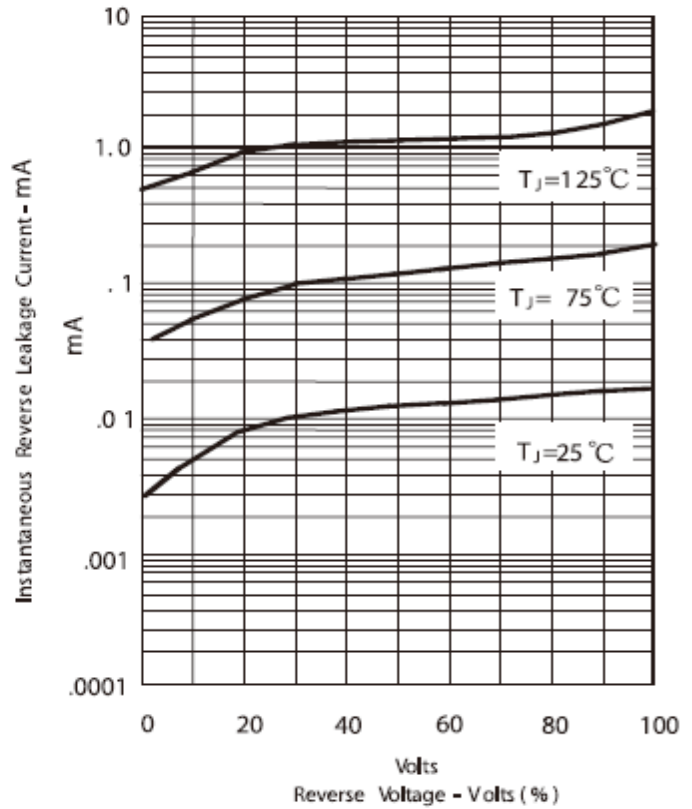
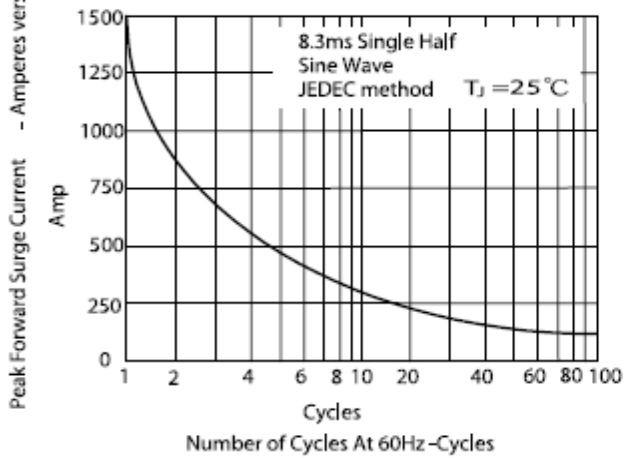
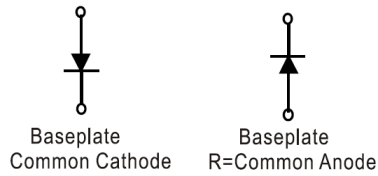
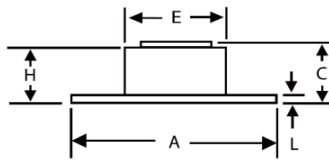
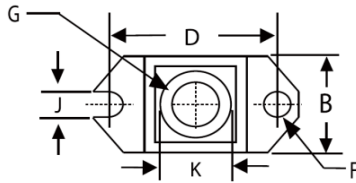


Figure.3-Peak Forward Surge Current



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



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	∅
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	∅
L	.120	.130	3.05	3.30	