

# America Semiconductor



"In America Semi We Trust"

MANUFACTURER OF WORLD CLASS HIGH POWER SEMICONDUCTORS

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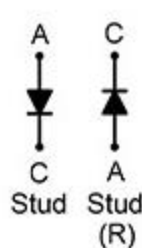
**Silicon Super Fast Recovery Diode**

**Features**

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

**Note:**

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.



### MUR7005 thru MUR7020R

$V_{RRM} = 50\text{ V} - 600\text{ V}$   
 $I_F = 70\text{ A}$

DO-5 Package



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

Parameter	Symbol	Conditions	MUR7005 (R)	MUR7010 (R)	MUR7020 (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
Continuous forward current	$I_F$	$T_C \leq 125^\circ\text{C}$	70	70	70	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}, t_p = 8.3\text{ ms}$	1000	1000	1000	A
Operating temperature	$T_j$		-65 to 175	-65 to 175	-65 to 175	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-65 to 175	-65 to 175	-65 to 175	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	MUR7005 (R)	MUR7010 (R)	MUR7020 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 70\text{ A}, T_j = 25^\circ\text{C}$	1	1	1	V
Reverse current	$I_R$	$V_R = 50\text{ V}, T_j = 25^\circ\text{C}$	25	25	25	$\mu\text{A}$
		$V_R = 50\text{ V}, T_j = 125^\circ\text{C}$	3	3	3	mA
<b>Recovery Time</b>						
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

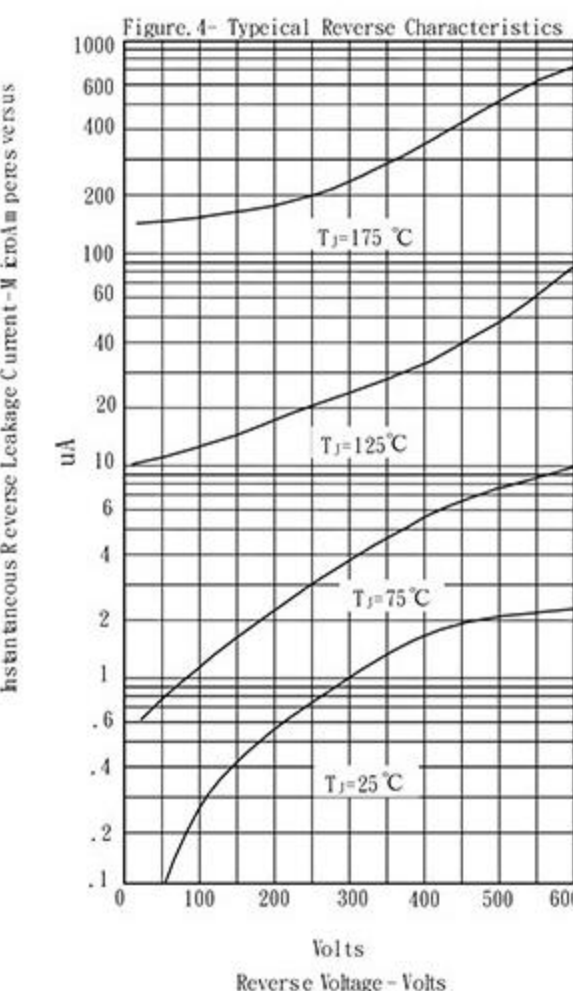
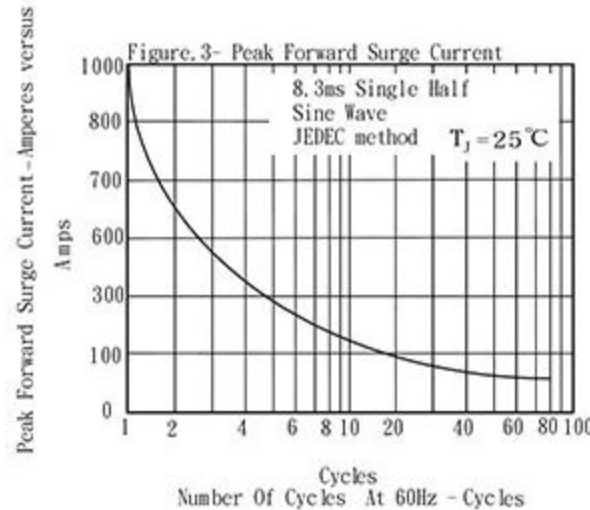
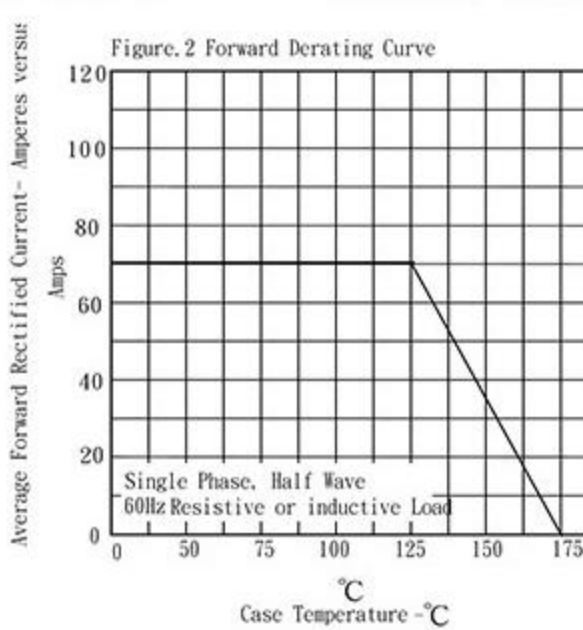
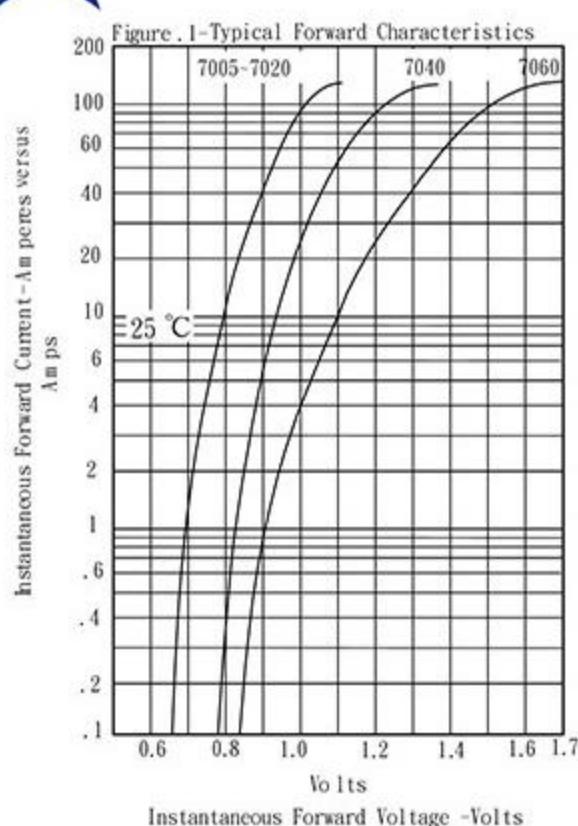


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### MUR7005 thru MUR7020R



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