

Silicon Super Fast Recovery Diode

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

$I_F = 25\text{ A}$

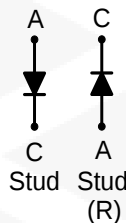
Features

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

Note:

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

DO-4 Package



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

Parameter	Symbol	Conditions	MUR2505 (R)	MUR2510 (R)	MUR2520 (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	$T_C \leq 145\text{ }^{\circ}\text{C}$	25	25	25	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^{\circ}\text{C}$, $t_p = 8.3\text{ ms}$	500	500	500	A
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 $T_j = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	MUR2505 (R)	MUR2510 (R)	MUR2520 (R)	Unit
Diode forward voltage	V_F	$I_F = 25\text{ A}$, $T_j = 25\text{ }^{\circ}\text{C}$	1	1	1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ }^{\circ}\text{C}$	10	10	10	μA
		$V_R = 50\text{ V}$, $T_j = 125\text{ }^{\circ}\text{C}$	3	3	3	mA

Recovery Time

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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Figure .1- Typical Forward Characteristics

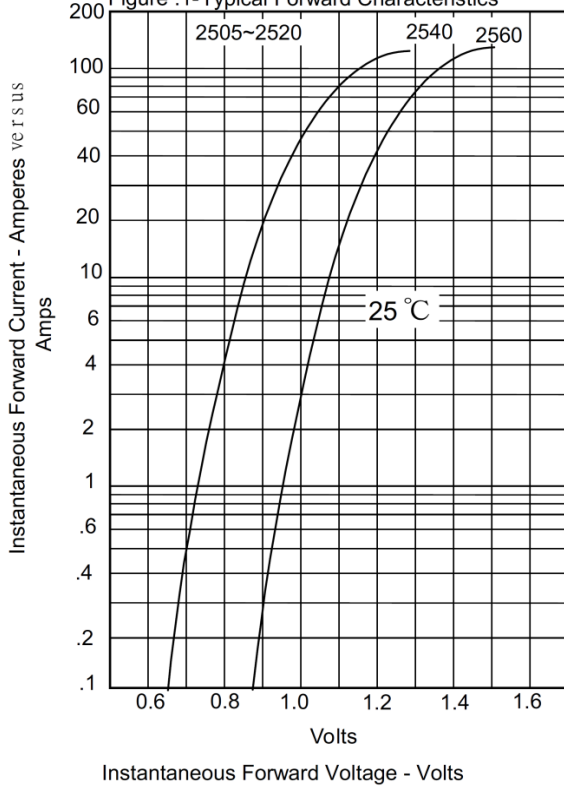


Figure .2- Forward Derating Curve

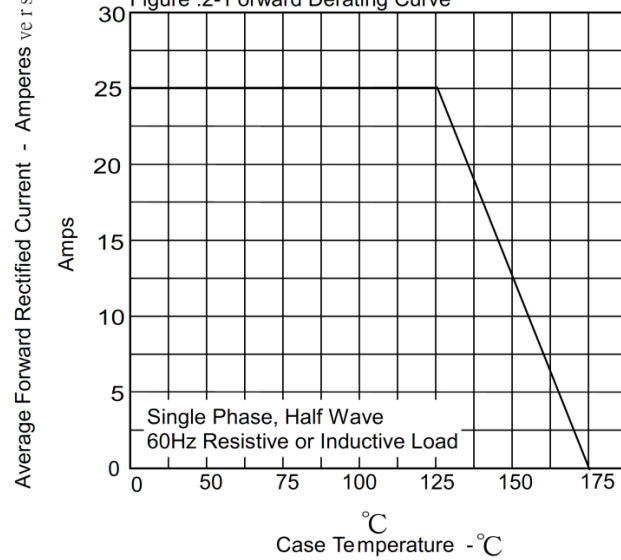


Figure.3- Peak Forward Surge Current

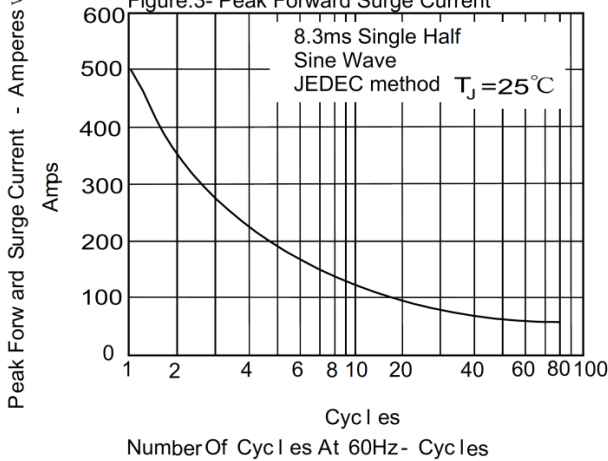
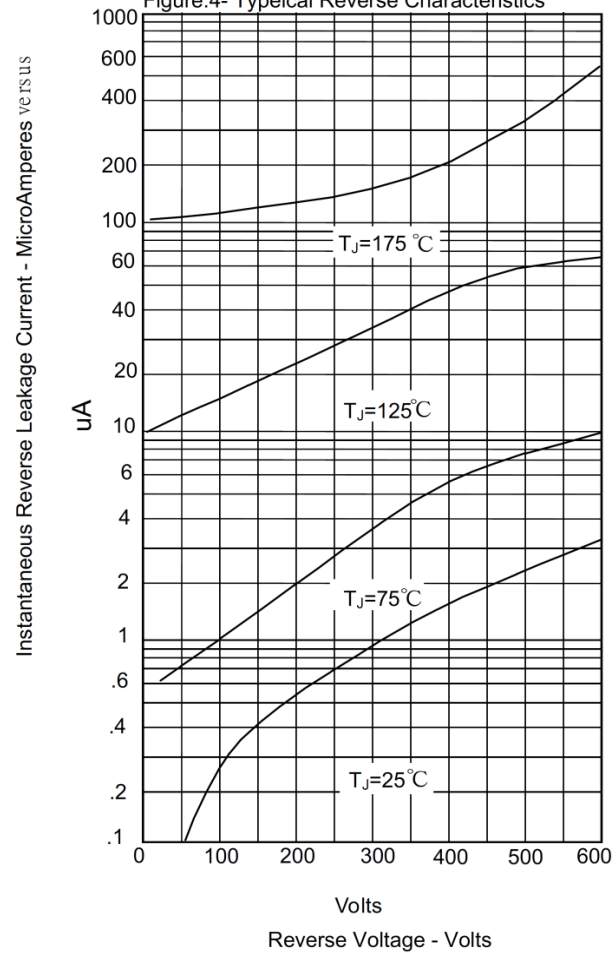
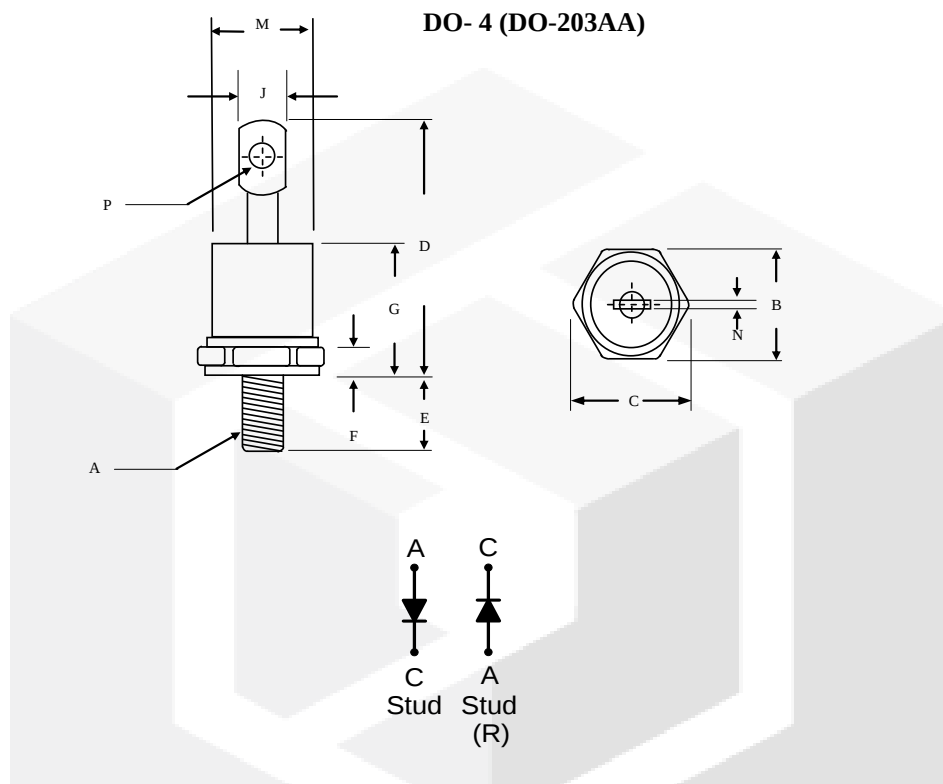


Figure.4- Typical Reverse Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



	Inches		Millimeters	
	Min	Max	Min	Max
A	10-32 UNF			
B	0.424	0.437	10.77	11.10
C	----	0.505	----	12.82
D	----	0.800	----	20.30
E	0.453	0.492	11.50	12.50
F	0.114	0.140	2.90	3.50
G	----	0.405	----	10.29
J	----	0.216	----	5.50
M	----	ø0.302	----	ø7.68
N	0.031	0.045	0.80	1.15
P	0.070	0.79	1.80	2.00

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