

## Silicon Standard Recovery Diode

$V_{RRM} = 200\text{ V} - 800\text{ V}$

$I_F = 100\text{ A}$

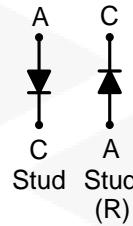
### Features

- High Surge Capability
- Types from 200 V to 800 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-8 Package



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

Parameter	Symbol	Conditions	1N3289A(R)	1N3291A(R)	1N3293A(R)	1N3294A(R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		200	400	600	800	V
DC blocking voltage	$V_{DC}$		200	400	600	800	V
Continuous forward current	$I_F$	$T_C \leq 130\text{ }^\circ\text{C}$	100	100	100	100	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	2300	2300	2300	2300	A
$I_2t$ for fusing	$I_2t$	60 Hz Half wave	22000	22000	22000	22000	$\text{A}^2\text{sec}$
Operating temperature	$T_j$		-55 to 150	-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	-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	1N3289A(R)	1N3291A(R)	1N3293A(R)	1N3294A(R)	Unit
Diode forward voltage	$V_F$	$I_F = 100\text{ A}$ , $T_j = 130\text{ }^\circ\text{C}$	1.5	1.5	1.5	1.5	V
Reverse current	$I_R$	$V_R = V_{RRM}$ , $T_j = 130\text{ }^\circ\text{C}$	24	24	17	13	mA

### Thermal characteristics

Parameter	Symbol	Conditions	1N3289A(R)	1N3291A(R)	1N3293A(R)	1N3294A(R)	Unit
Thermal resistance, junction - case	$R_{thJC}$		0.40	0.40	0.40	0.40	$^\circ\text{C/W}$

Electrical Characteristics

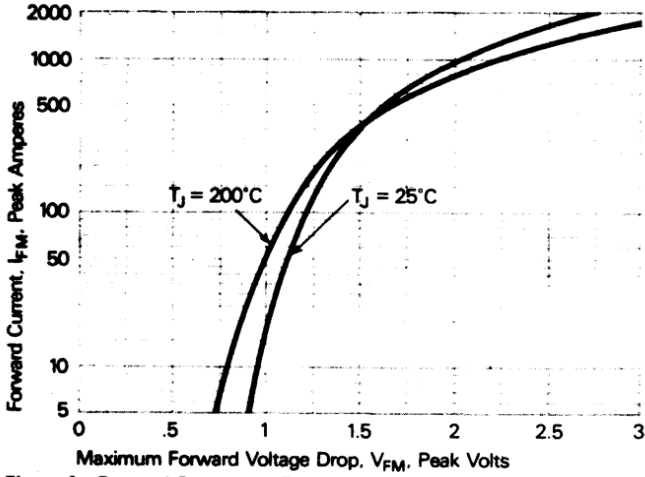


Figure 1. Forward Current vs. Forward Voltage.

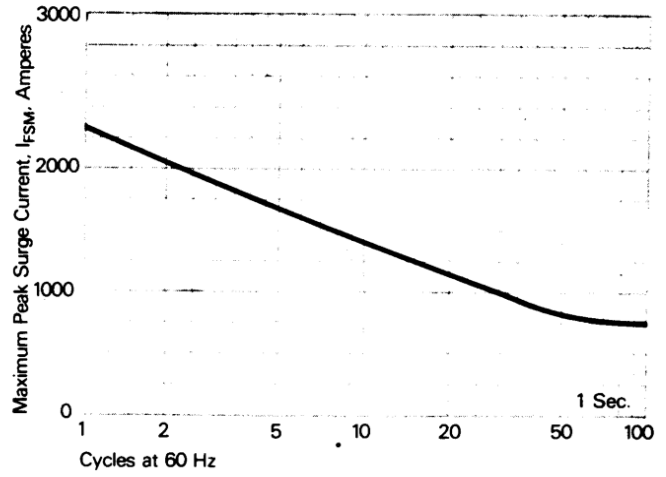


Figure 2. Maximum allowable surge current at rated load conditions.

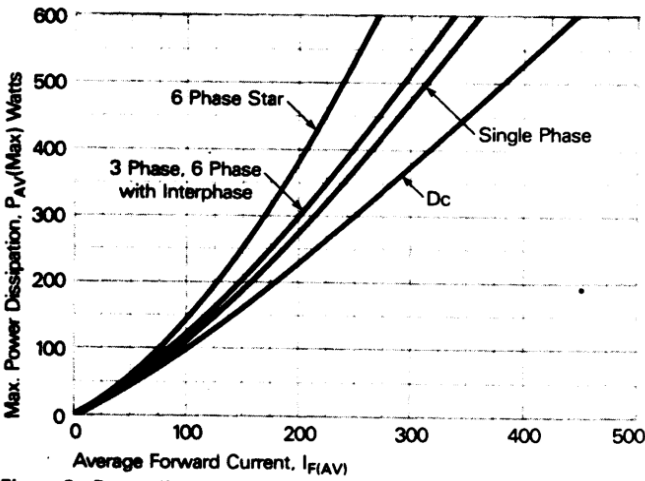


Figure 3. Power dissipation vs. Average forward current.

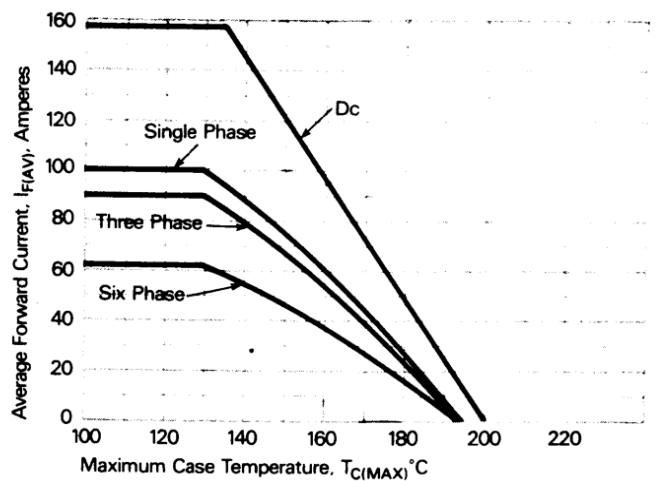
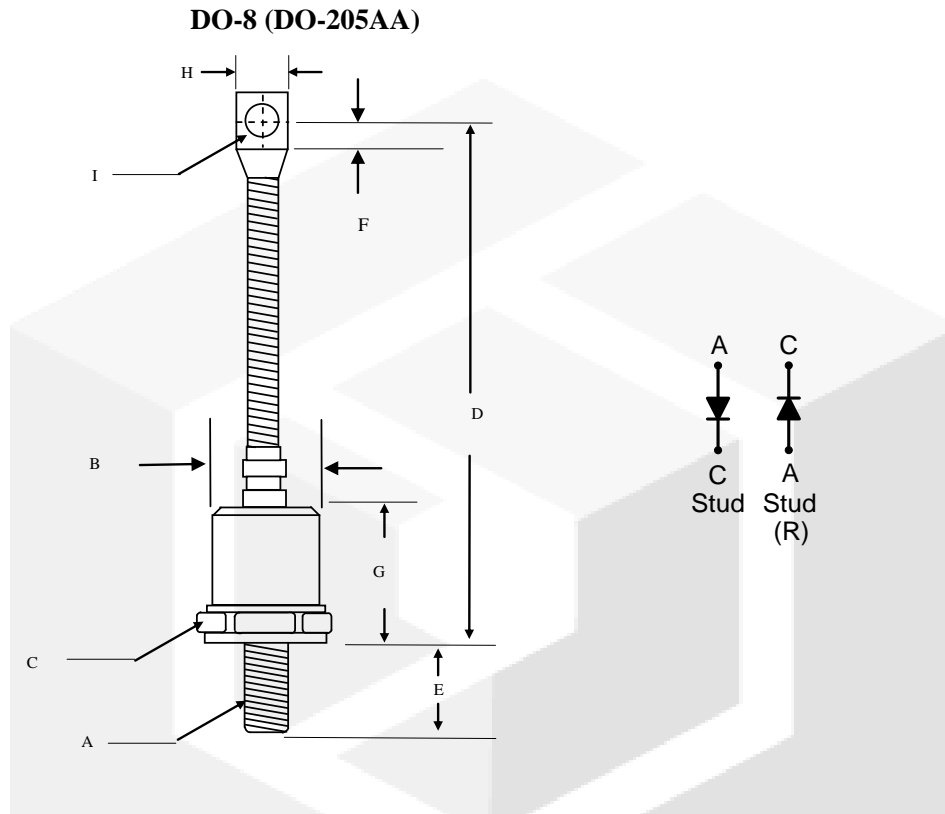


Figure 4. Forward Current vs. Case Temperature.



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.



	Inches		Millimeters	
	Min	Max	Min	Max
A	3/8-24 UNF			
B	----	$\phi 0.930$	----	$\phi 23.5$
C	1.050	1.060	26.67	26.92
D	4.300	4.700	109.22	119.38
E	----	0.690	----	17.00
F	0.260	----	6.50	----
G	----	0.940	----	24.00
H	----	0.600	----	15.23
I	0.276	0.286	7.010	7.260

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