Silicon Standard Recovery Diode

V_{RRM} = 200 V - 1000 V
I_F = 150 A

Features

- High Surge Capability
- Types from 200 V to 1000 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



RoHS COMPLIANT

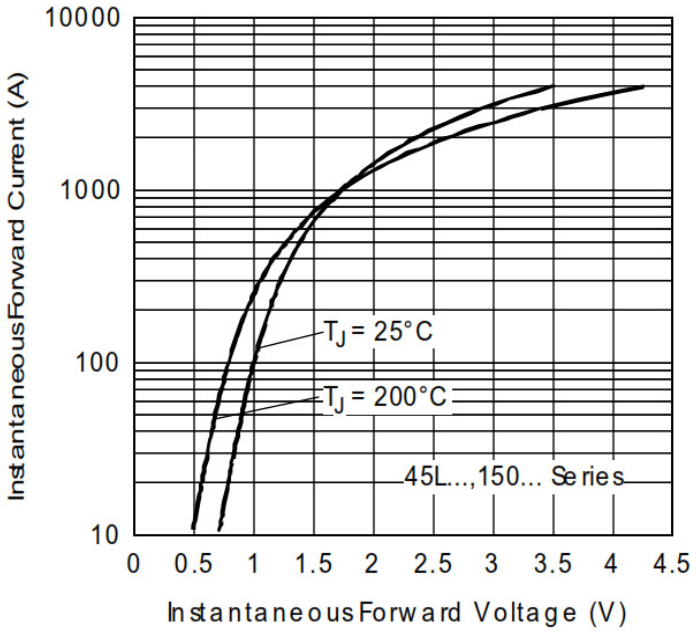
REACH COMPLIANCE

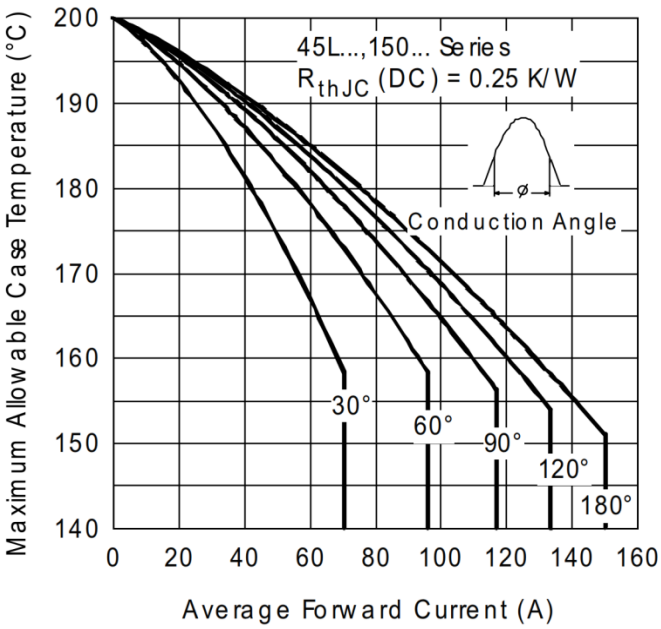
Maximum ratings, at T_j = 25 °C, unless otherwise specified ("R" devices have leads reversed)

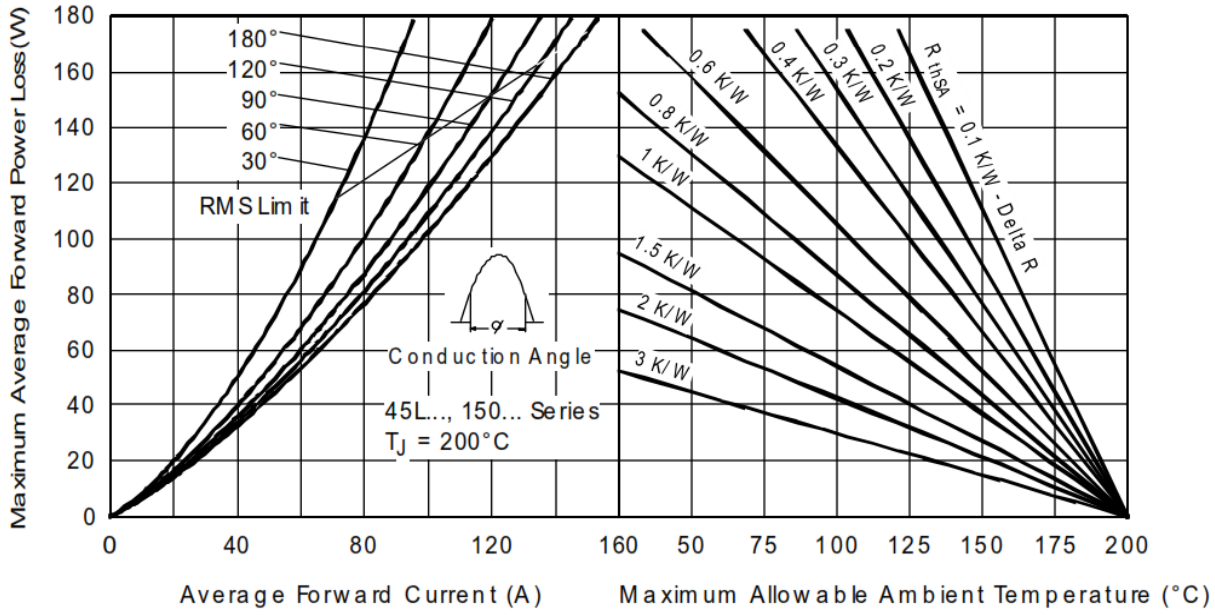
Parameter	Symbol	Conditions	150K(R)20A	150K(R)40A	150K(R)60A	150K(R)80A	150K(R)100A	Unit
Repetitive peak reverse voltage	V_{RRM}		200	400	600	800	1000	V
DC blocking voltage	V_{DC}		200	400	600	800	1000	V
Continuous forward current	I_F	$T_C \leq 110$ °C	150	150	150	150	150	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	3740	3740	3740	3740	3740	A
I_2t for fusing	I_2t	t = 8.3ms	58000	58000	58000	58000	58000	A^2sec
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	150K(R)20A	150K(R)40A	150K(R)60A	150K(R)80A	150K(R)100A	Unit
Diode forward voltage	V_F	I_F = 150 A, T_j = 25 °C	1.33	1.33	1.33	1.33	1.33	V
Reverse current	I_R	$V_R = V_{RRM}$, T_j = 175 °C	35	35	35	32	24	mA
Thermal characteristics								
Thermal resistance, junction - case	R_{thJC}		0.25	0.25	0.25	0.25	0.25	°C/W


Instantaneous Forward Current (A)
10000
1000
100
10
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
Instantaneous Forward Voltage (V)
T_J = 25°C
T_J = 200°C
45L...,150... Series

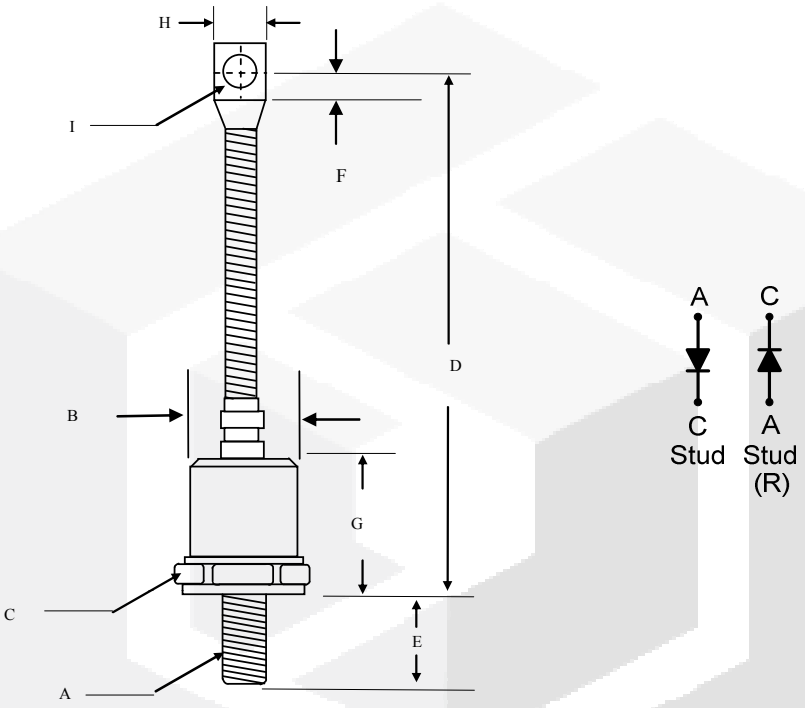

Maximum Allowable Case Temperature (°C)
200
190
180
170
160
150
140
0
20
40
60
80
100
120
140
160
Average Forward Current (A)
45L...,150... Series
R_{thJC} (DC) = 0.25 K/W
Conduction Angle
30°
60°
90°
120°
180°


Maximum Average Forward Power Loss (W)
180
160
140
120
100
80
60
40
20
0
0
40
80
120
Average Forward Current (A)
180°
120°
90°
60°
30°
RMS Limit
Conduction Angle
45L..., 150... Series
T_J = 200°C
160
50
75
100
125
150
175
200
Maximum Allowable Ambient Temperature (°C)
0.6 K/W
0.4 K/W
0.3 K/W
0.2 K/W
R_{thSA} = 0.1 K/W - Delta R
0.8 K/W
1 K/W
1.5 K/W
2 K/W
3 K/W

Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

DO-8 (DO-205AA)



	Inches		Millimeters	
	Min	Max	Min	Max
A	3/8-24 UNF			
B	-----	φ0.930	-----	φ23.5
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