

1N4594(R) thru 1N4596(R)

Silicon Standard Recovery Diode

$V_{RRM} = 1000 \text{ V} - 1400 \text{ V}$

$I_F = 150 \text{ A}$

Features

‡ +LJK 6XUJH &DSDELOLW\ 9 W, R 9 ‡
‡ 7\SHV IURP 9 W, R 9 ‡
‡ 1RW (6' 6HQVLWLYH

DO-8 Package

Note:

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

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

Parameter	Symbol	Conditions	1N4594(R)	1N4595(R)	1N4596(R)	Unit
Repetitive peak reverse voltage	V_{RRM}		1000	1200	1400	V
DC blocking voltage	V_{DC}		1000	1200	1400	V
Continuous forward current	I_F	$T_C = f \&$	150	150	150	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}, t_p = 8.3 \text{ ms}$	3000	3000	3000	A
I_2t for fusing	I_2t	60 Hz Half wave	37200	37200	37200	A^2sec
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 $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	1N4594(R)	1N4595(R)	1N4596(R)	Unit
Diode forward voltage	V_F	$I_F = 150 \text{ A}, T_j = 110^\circ\text{C}$	1.5	1.5	1.5	V
Reverse current	I_R	$V_R = V_{RRM}, T_j = 110^\circ\text{C}$	4.5	4	3.5	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.35	0.35	0.35	$^\circ\text{C/W}$
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Electrical Characteristics

3000

92



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	----	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