New Jersey Semi-Conductor Products, Inc.

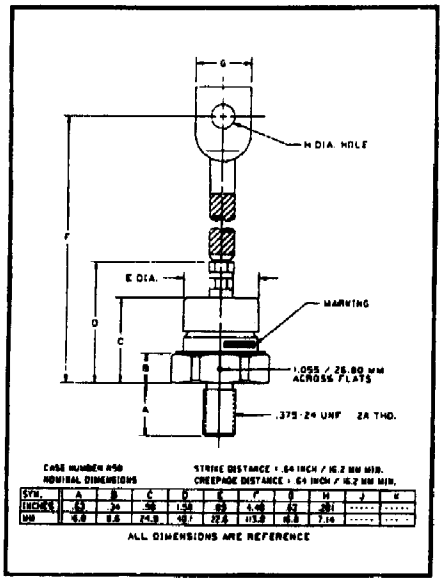
20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

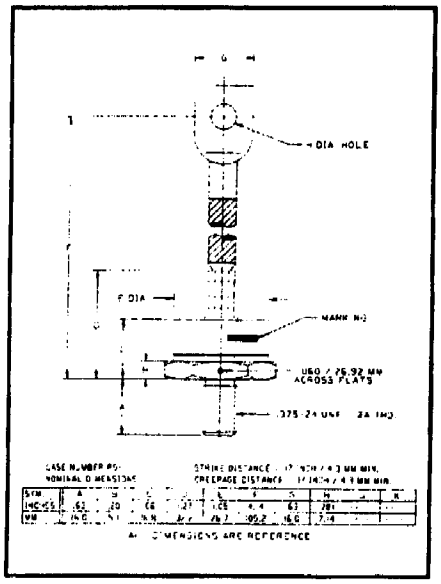
TELEPHONE: (973) 376-2922
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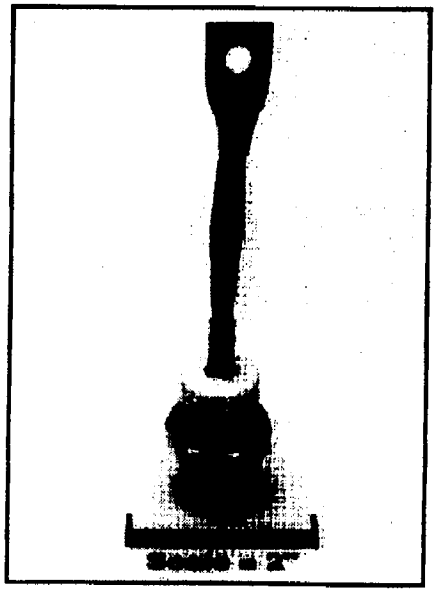
IN4587, R-
IN4596, R

General Purpose Rectifier

150 Amperes Average
1400 Volts







IN4587, R - IN4596, R (Outline Drawing)

Ordering Information:
Select the complete six digit part number you desire from the table, i.e. IN4596 is a 1400 Volt, 150 Ampere General Purpose Rectifier.

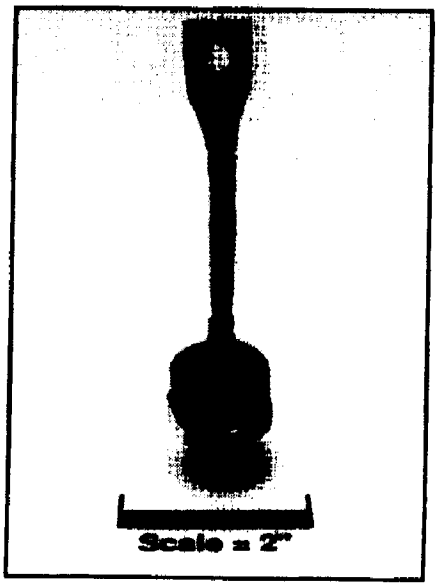
Type	Voltage V_{DRM}/V_{RRM} (Volts)	Current $I_{T(av)}$ (A)
IN4587	100	150
IN4588	200	
IN4589	300	
IN4590	400	
IN4591	500	
IN4592	600	
IN4593	800	
IN4594	1000	
IN4595	1200	
IN4596	1400	

Features:

- ☐ Standard and Reverse Polarities with Color Coded Seals
- ☐ High Surge Current Ratings
- ☐ Electrical Selection for Parallel and Series Operation
- ☐ Compression Bonded Encapsulation

Applications:

- ☐ Welders
- ☐ Battery Chargers
- ☐ Electromechanical Refining
- ☐ Metal Reduction
- ☐ General Industrial High Current Rectification



IN4587, R - IN4596, R
General Purpose Rectifier
150 Amperes Average,
1400 Volts

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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IN4587,R - IN4596,R
General Purpose Rectifier
150 Ampere Average, 1400 Volts

Absolute Maximum Ratings

Characteristics	Symbol	IN4587,R - IN4696,R	Units
RMS Forward Current	$I_{F(rms)}$	236	Amperes
Maximum Average Forward Current	$I_{F(av)}$	150	Amperes
One-half Cycle Surge Current (at 60Hz Under Load)	I_{FSM}	3000	Amperes
I^2t (for Fusing), (at 60Hz Half-wave)	I^2t	37200	A^2sec
Storage Temperature	T_{stg}	-60 to +200	°C
Operating Temperature	T_j	-60 to +200	°C
Mounting Torque (Lubricated)		120	in-lb

Electrical and Thermal Characteristics

Characteristics	Symbol	IN4587	IN4588	IN4589	IN4590	IN4591	IN4592	IN4593	IN4594	IN4595*	IN4596*	Units
Current - Conducting State Maximums, T_j = 200°C												
Max. Reverse Current at Rated V_{RRM} 150A Avg. Forward Current, T_j = 110°C	$I_{R(av)}$	9.5	9.5	9.0	9.0	8.0	6.5	5.5	4.5	4.0	3.5	mA
Voltage - Blocking State Maximums												
Repetitive Peak Reverse Voltage	V_{RRM}	100	200	300	400	500	600	800	1000	1200	1400	Volts
Non-rep. Trans. Peak Rev. Voltage	V_{RSM}	200	300	400	525	650	800	1050	1300	1600	1800	Volts
Max. Allowable d-c Blocking Voltage	V_R	100	200	300	400	500	600	800	1000	1200	1400	Volts
Thermal												
Maximum Resistance, Junction to Case	$R_{\theta(j-c)}$	0.35 (All Types)										°C/Watt
Maximum Resistance, Case to Sink (Lubricated)	$R_{\theta(c-s)}$	0.15 (All Types)										°C/Watt

*Ceramic Seal Supplied

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