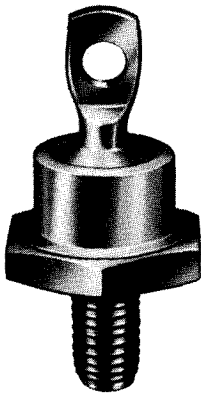


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Brochure Order No.
D HS 60624/11 E



FMC

**Silicon
Power Rectifiers**

Series 304
40 Amperes Average

Data and Diagrams are related to 60 cycles

Catalog Number Polarity		equivalent to JEDEC Numbers	Peak Reverse Voltage
Standard	Reverse		
S30410	R30410	1N1184, 1N1184A	100
S30420	R30420	1N1186, 1N1186A	200
S30430	R30430	1N1187, 1N1187A	300
S30440	R30440	1N1188, 1N1188A	400
S30450	R30450	1N1189, 1N1189A	500

Electrical Characteristics

Maximum Average Forward Current, Single-Phase, Half-Wave DC Rating at 154°C Case Temperature	40 Amps.
Maximum Surge Current (one cycle of 60 Hz sine wave)	800 Amps.
Peak Forward Voltage at 100 Amps (25°C Case Temperature)	1.2 Volts Max.
Rated Peak Reverse Voltage Range	100 to 500 Volts
Maximum Peak Reverse Current at 190°C Case Temperature	10 MA
Maximum Operating Frequency	10,000 Hz
Max. I ² t (less than 8.33 ms)	2600 Amps. ² Sec.
Reverse Power Rating	0.60 Joule

Mechanical Characteristics

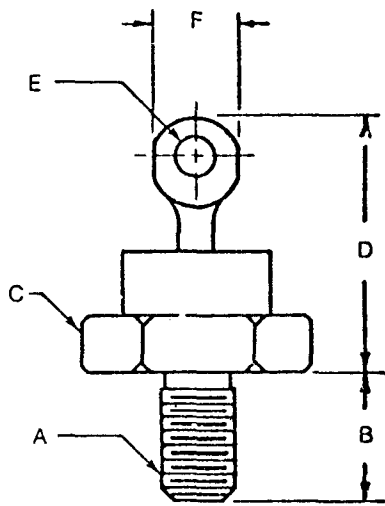
Base	Steel stud and base with a 1/4"-28 UNF-2A thread for through mounting on a heat sink. Nickel plating of base produces low contact resistance and prevents corrosion.
Header	Glass to metal construction. Hermetically sealed to base.
Weight	Approximately 0.5 ounce (14 grams)
Mounting Position	May be mounted in any position
Mounting Torque	75 inch pounds maximum
Dimensions	In accordance with JEDEC DO-5 Outline

Thermal Characteristics

Storage Temperature Range	-65°C to +200°C
Operating Temperature Range Junction	-65°C to +190°C
Impedance (°C/W), Junction to Case	1.00 Max.

Environmental Specifications

Tests in accordance with (MIL-E-1)	
Tests include:	Temperature cycling, Salt spray, Vibration, Shock, Moisture resistance and Temperature soak.



- ▼ Standard, cathode on stud
- ▲ Reverse, anode on stud

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A					1
B	.44	.47	11.11	11.89	
C	.67	.69	16.94	17.46	2
D	—	1.00	—	25.40	
E	.15	.18	3.81	4.69	
F	—	.28	—	7.14	

Note 1:
1/4"-28 UNF-2A

Note 2:
Across Flats

Figure 1
Load current versus case temperature

Figure 2
Maximum power dissipation versus forward current

Figure 3
Maximum forward characteristics

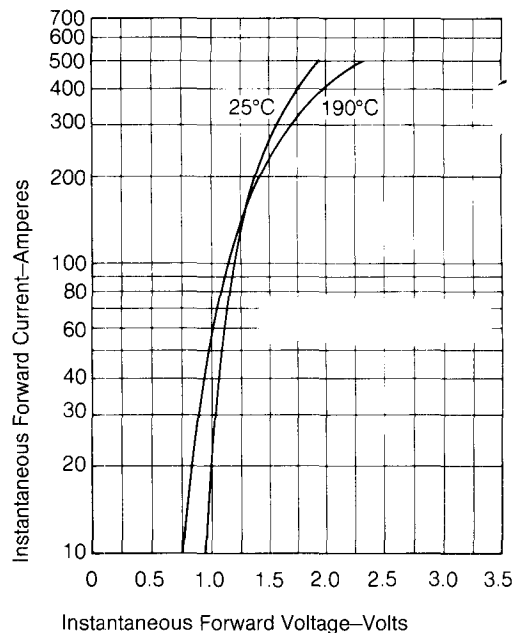
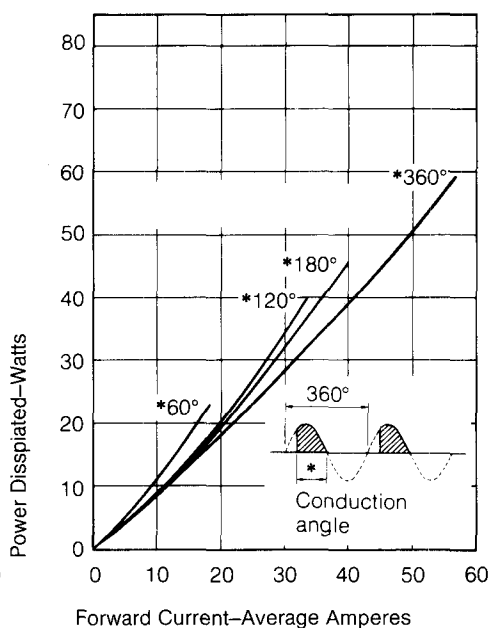
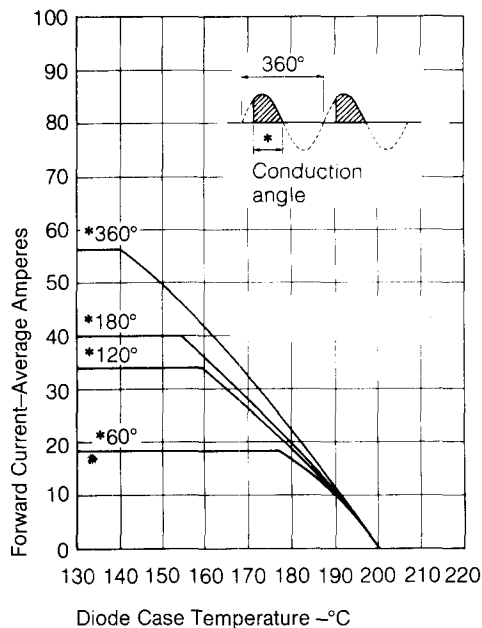


Figure 4
Transient thermal impedance

Figure 5
Maximum surge current at 25°C

