

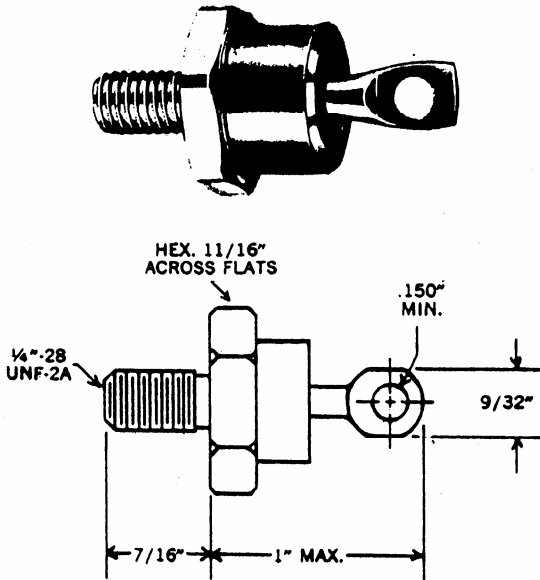
# SERIES F3, F4, F5, F6, F7

## Silicon Power Rectifiers

Edal Series F power rectifiers are stud mounted DO-5 packages. Because the silicon junction is carefully fitted within a glass-to-metal hermetically sealed case, reliable operation is assured, even with extreme humidity and under other severe environmental conditions. The series F power rectifiers are completely corrosion resistant. A double diffused, passivated junction technique is utilized to provide stable uniform electrical characteristics. Inherent in their design is very low leakage currents and excellent surge handling capability. Standard, bulk avalanche and fast recovery types in voltage ratings from 50 to 1500 volts PIV are available. Series F power rectifiers are also available in reverse polarity offering extended application parameters. Edal Series F power rectifiers are ideal for a broad range of commercial and military uses including power supplies, ultrasonic systems, inverters, welders, emergency generators, battery chargers, DC motors, and motor controls.

### Specifications

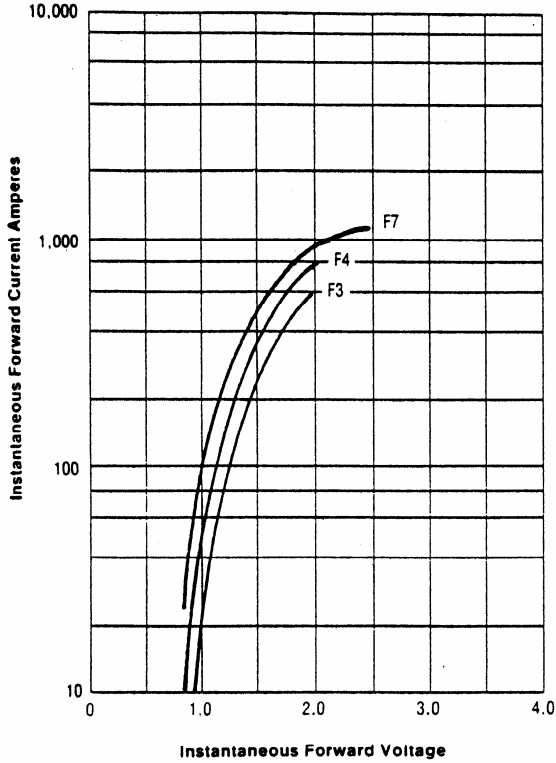
PIV VOLTS	30 AMP	37 AMP	45 AMP	70 AMP	85 AMP
50	F3A3	F4A3	F5A3	F6A3	F7A3
100	F3B3	F4B3	F5B3	F6B3	F7B3
200	F3C3	F4C3	F5C3	F6C3	F7C3
250	F3D3	F4D3	F5D3	F6D3	F7D3
300	F3E3	F4E3	F5E3	F6E3	F7E3
350	F3F3	F4F3	F5F3	F6F3	F7F3
400	F3G3	F4G3	F5G3	F6G3	F7G3
500	F3H3	F4H3	F5H3	F6H3	F7H3
600	F3K3	F4K3	F5K3	F6K3	F7K3
700	F3M3	F4M3	F5M3	F6M3	F7M3
800	F3N3	F4N3	F5N3	F6N3	F7N3
1000	F3P3	F4P3	F5P3	F6P3	F7P3
1200	F3R3	F4R3	F5R3	F6R3	F7R3
1500	F3S3	F4S3	F5S3	F6S3	F7S3



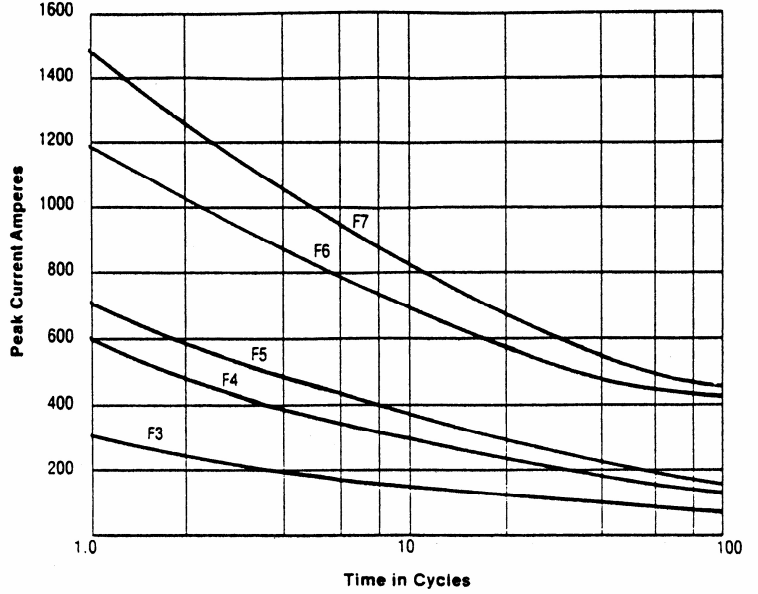
### ELECTRICAL RATINGS

	F3	F4	F5	F6	F7
Maximum Forward Current Single Phase Half Wave					
Case Temperature °C	124	123	122	138	132
I <sub>o</sub> AMPS	30	37	45	70	85
Maximum Surge Current Single Cycle Amps	300	600	700	1200	1500
Maximum Forward Drop @ 25°C Case					
I <sub>o</sub> Amps	90	90	90	200	200
V <sub>f</sub> Volts	1.3	1.2	1.15	1.29	1.2
Maximum Reverse Current					
FCA @ 150°C ma	1.0	2.0	2.0	2.0	2.0
Maximum I <sup>2</sup> T (less than 8ms)					
Amps <sup>2</sup> -Sec	350	1500	2100	6000	9300
Reverse Power for Bulk Avalanche (Joules)	0.6	0.6	0.6	0.6	0.6
Storage Temperature °C	-65 to 200	-65 to 200	-65 to 200	-65 to 200	-65 to 200
Operating Temperature °C	-65 to 190	-65 to 190	-65 to 190	-65 to 190	-65 to 190
Thermal Impedance Maximum (Junction to Case) °C/Watt Maximum	1.8	1.5	1.25	0.65	0.6
Jedec Style	DO5	DO5	DO5	DO5	DO5

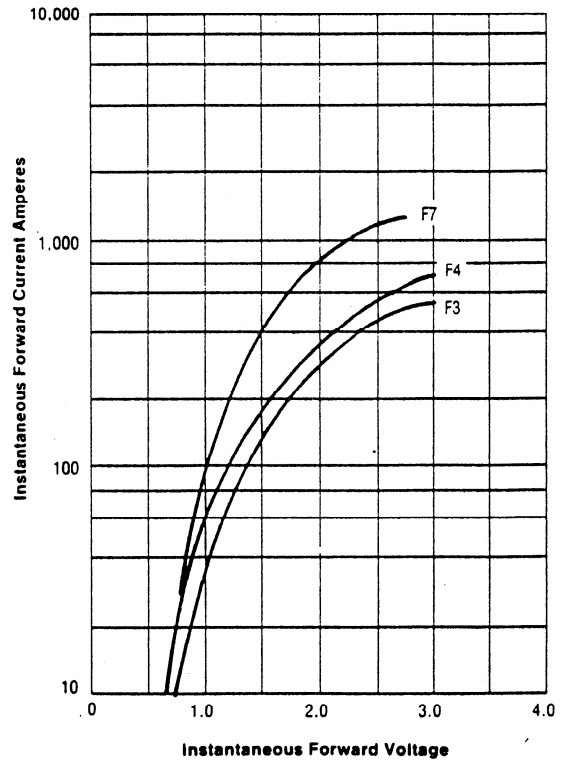
Typical Forward Characteristics At 25°C



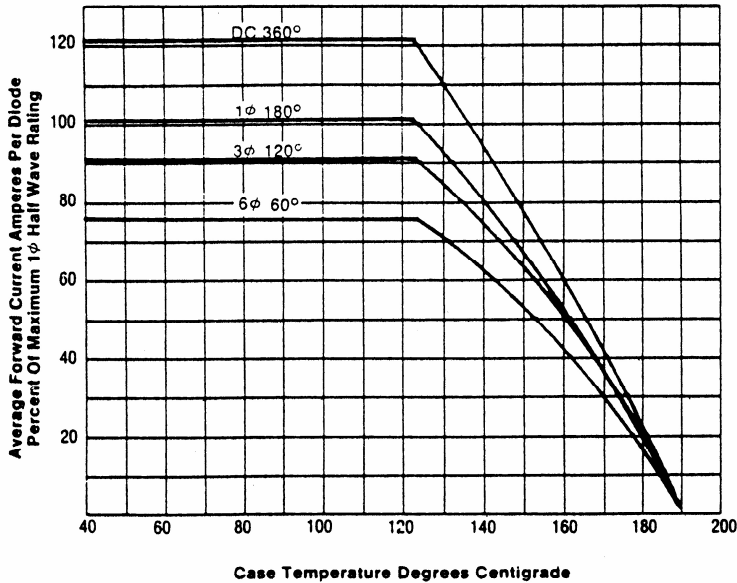
Surge Current at Rated Load



Typical Forward Characteristics At 190°C



Current Rating



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