RECTIFIERS

High Reliability, HV Plus™ Series
8.0 Amps up to 600 Volts

FEATURES

- Ultra Fast Recovery - 35ns
- Controlled Avalanche
- High Temperature Operation With Low Loss
- Minimal Recovery Transients
- Low Turn-on Voltage
- TO - 220AC Package

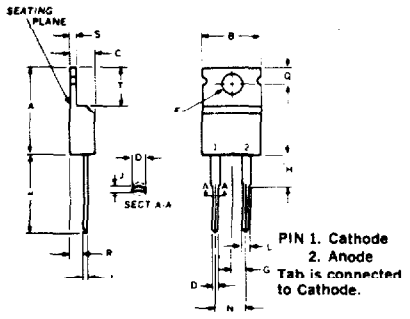
DESCRIPTION

This state of the art high frequency rectifier is ideally suited for applications requiring high blocking voltage. It has the ability to switch significant current with minimal switching transients and losses. Leakage current at high temperature has been minimized, achieving exceptionally low reverse losses. An ultra stable process ensures high reliability and long life. This device is designed for a wide variety of high-frequency applications.

ABSOLUTE MAXIMUM RATINGS

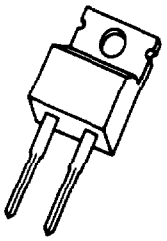
Peak Reverse Voltage, V_R, UHVP802 . . . . . 200V
Peak Reverse Voltage, V_R, UHVP804 . . . . . 400V
Peak Reverse Voltage, V_R, UHVP806 . . . . . 600V
Average DC Output Current, Io, Tc = 130°C 8A
Peak Forward Surge Current, 8.3mS 100A
Thermal Resistance Junction To Case . . . . . 2.2°C/W
Operating and Storage Temperature . . . . . -55°C to +150°C

UHVP802 UHVP804 UHVP806



DIM	MILLIMETERS MIN	MILLIMETERS MAX	INCHES MIN	INCHES MAX
A	14.23	15.87	0.560	0.625
B	9.66	10.66	0.380	0.420
C	3.56	4.82	0.140	0.190
D	0.51	1.14	0.020	0.045
F	3.531	3.733	0.139	0.147
G	2.29	2.79	0.090	0.110
H	—	6.35	—	0.250
J	0.38	0.64	0.015	0.025
K	12.70	14.27	0.500	0.562
L	1.14	1.77	0.045	0.070
N	4.83	5.33	0.190	0.210
Q	2.54	3.04	0.100	0.120
R	2.64	2.92	0.099	0.115
S	1.14	1.39	0.045	0.055
T	5.85	6.85	0.230	0.270

TO-220AC



Microsemi Corp.
Watertown
The diode experts

ELECTRICAL CHARACTERISTICS (Tc = 25°C UNLESS NOTED)
Pulse Width = 400 µs, Duty Cycle = 1 Percent

Forward Voltage	Forward Voltage	Forward Voltage Tc = 125°C	Reverse Current	Reverse Current Tc = 125°C
1.35V @ 4.0A	1.5V @ 8.0A	1.2V @ 8.0A	10 µA @ Vr = Rated	250 µA @ Vr = Rated

SWITCHING CHARACTERISTICS (Tc = 25°C)

Reverse Recovery Time*	tIRM If = 8A di/dt = 100 A/µs	IRM If = 8A di/dt = 100 A/µs
35nS	35nS TYPICAL	3.5A TYPICAL

* MEASURED IN CIRCUIT If = 0.5A, Irm = 1.0A, Irec = 0.25A

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