

RECTIFIER ASSEMBLIES

688 SERIES

High Voltage Stacks,
Standard and Fast Recovery

3

FEATURES

- PIV: from 10kV to 25kV
- Surge Ratings of 20A
- Recovery Time Available, to 500ns
- Current Ratings: to 0.6A
- Bonded Plate for Maximum Heat Transfer
- Controlled Avalanche Characteristics
- Only Fused-in Glass Diodes Used

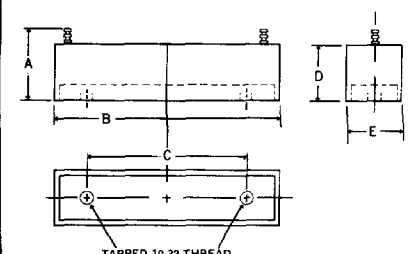
DESCRIPTION

This series of high power stacks has a unique packaging design that provides characteristics not obtainable in conventional molded epoxy packages. This series, therefore, is ideally suited for high-voltage, high-power applications.

ABSOLUTE MAXIMUM RATINGS

| | |
|--|-------------------------------|
| Peak Inverse Voltage | 10kV to 25kV |
| Maximum Average D.C. Output Current | See Electrical Specifications |
| Non-repetitive Sinusoidal Surge (8.3ms) | 20A |
| Operating and Storage Temperature Range, T_C | -65°C to +150°C |
| Thermal Resistance Junction to Ambient | 25°C/W |
| Junction to Case | 10°C/W |

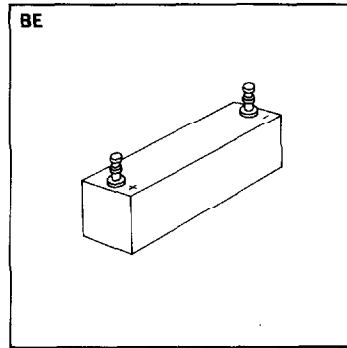
MECHANICAL SPECIFICATIONS



688 SERIES

| | ins. | mm. |
|---|-------------|-------------|
| A | 1.140 MAX. | 28.96 MAX. |
| B | 2.985-3.015 | 75.82-76.58 |
| C | 2.110-2.140 | 53.59-54.36 |
| D | .740-.770 | 18.80-19.56 |
| E | .720-.760 | 18.29-19.05 |

Add suffix R to denote Fast Recovery version. For example, for recovery time, $t_r = 500ns$; order 688-10R.



MARKING

| | |
|---------------------------|---|
| Cathode — Positive Output | + |
| Anode — Negative | - |

Part number is printed on the body.

Microsemi Corp.
Watertown
The diode experts

| Electrical Specifications (at 25°C unless noted) | | | | Maximum Ratings | |
|--|-----------|------------------------------|-------------------------------|------------------------------|-------------------------------------|
| Type | PIV kV | Maximum Forward Voltage Drop | Maximum Leakage Current @ PIV | | Maximum Average D.C. Output Current |
| | | | T _A = 25°C μA | T _A = 100°C μA | T _C = 100°C Amps |
| Standard | 688-10 | 17V @ 0.4A | 2 | 100 | 0.60 |
| And Fast Recovery* | 688-12 | 20V @ 0.4A | | | 0.50 |
| | 688-15 | 25V @ 0.4A | | | 0.40 |
| | 688-18 | 30V @ 0.4A | | | 0.35 |
| | 688-20 | 34V @ 0.4A | | | 0.30 |
| | 688-25 | 42V @ 0.4A | | | 0.20 |

*Add suffix R to denote Fast Recovery version.

