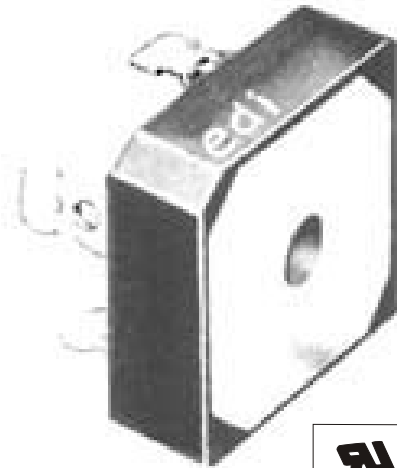




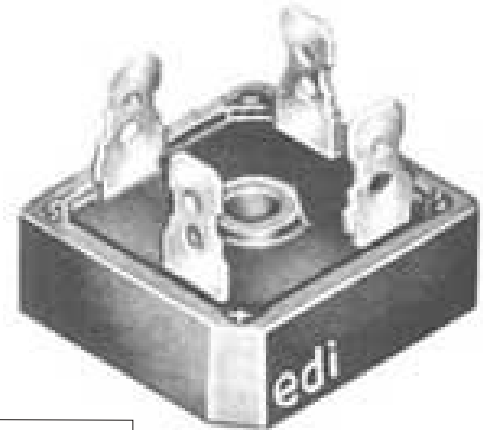
# FPIR32 MPIR40 KPIR50

## MINIBRIDGE<sup>®</sup>

FAST RECOVERY, 32, 40 and 50 AMPERES



INTEGRALLY MOLDED  
HEAT SINKS  
PROVIDE VERY LOW  
THERMAL RESISTANCE



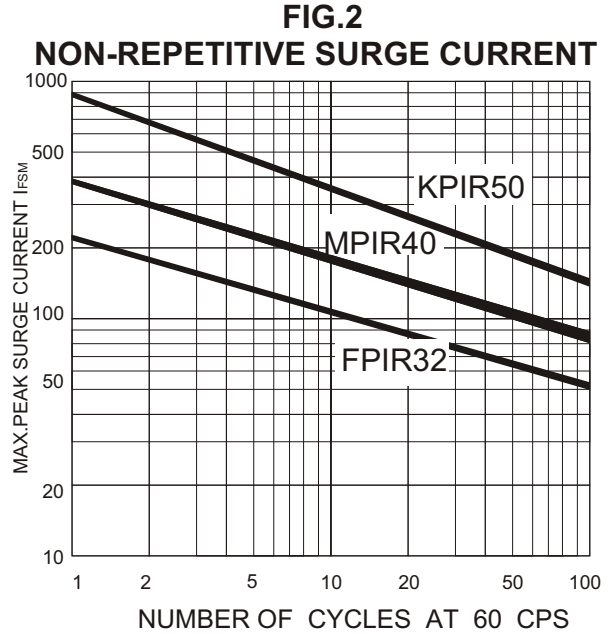
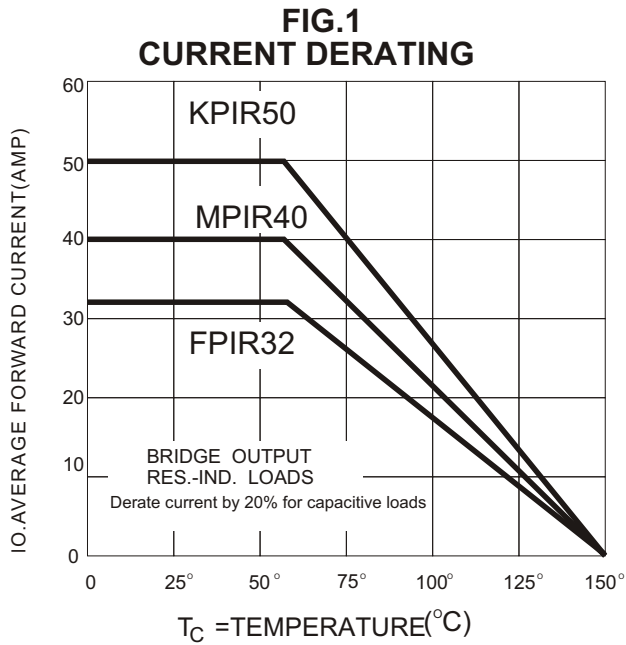
This mark indicates recognition under the component program of Underwriters Laboratories, inc.

Our unique case construction enables the closer molding of integrated heat sink to the active components for a superior thermal transfer and lower junction temperatures.

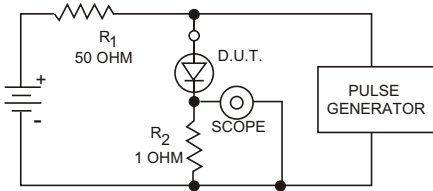
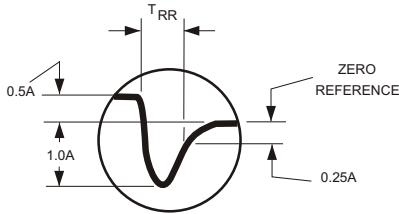
| SERIES      | 50V       | 100V      | 200V      | 400V      | 600V      | 800V      | 1000V      |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| FPIR SERIES | FPIR 3205 | FPIR 3210 | FPIR 3220 | FPIR 3240 | FPIR 3260 | FPIR 3280 | FPIR 32100 |
| MPIR SERIES | MPIR 4005 | MPIR 4010 | MPIR 4020 | MPIR 4040 | MPIR 4060 | MPIR 4080 | MPIR 40100 |
| KPIR SERIES | KPIR 5005 | KPIR 5010 | KPIR 5020 | KPIR 5040 | KPIR 5060 | KPIR 5080 | KPIR 50100 |

| ELECTRICAL CHARACTERISTICS PER LEG<br>(at T <sub>A</sub> =25 °C Unless Otherwise Specified) | SERIES     |          |          | UNITS |
|---|------------|----------|----------|-------|
|   | FPIR 32    | MPIR 40  | KPIR 50  |       |
| Average Output Current, I <sub>o</sub> @ T <sub>c</sub> (Fig.1)                             | 32         | 40       | 50       | Amp   |
| Max.Forward Voltage Drop, V <sub>F</sub> @ I <sub>F</sub> =12A (300 μsec pulse)             | 1.4        | 1.4      | 1.4      | Volts |
| Max.DC Reverse Current @ PRV and 25 °C, I <sub>R</sub>                                      | 10         | 10       | 15       | μA    |
| Max.DC Reverse Current @ PRV and 100°C, I <sub>R</sub>                                      | 100        | 100      | 150      | μA    |
| Max.Peak Surge Current, I <sub>FSM</sub> (8.3ms) (Fig.2)                                    | 240        | 320      | 900      | Amp   |
| Max. Reverse Recovery Time, T <sub>rr</sub> (Fig.3)   | 250        | 250      | 250      | ns.   |
| Storage Temperature Range, T <sub>STG</sub>   | -55 to+150 |          |          | °C    |
| Ambient Operating Temperature Range, T <sub>A</sub>   | -55 to+150 |          |          | °C    |
| Thermal Resistance (Total Bridge), R <sub>θj-c</sub>  | 1.5 typ.   | 1.2 typ. | 0.8 typ. | °C/W  |

# FPIR32 MPIR40 KPIR50



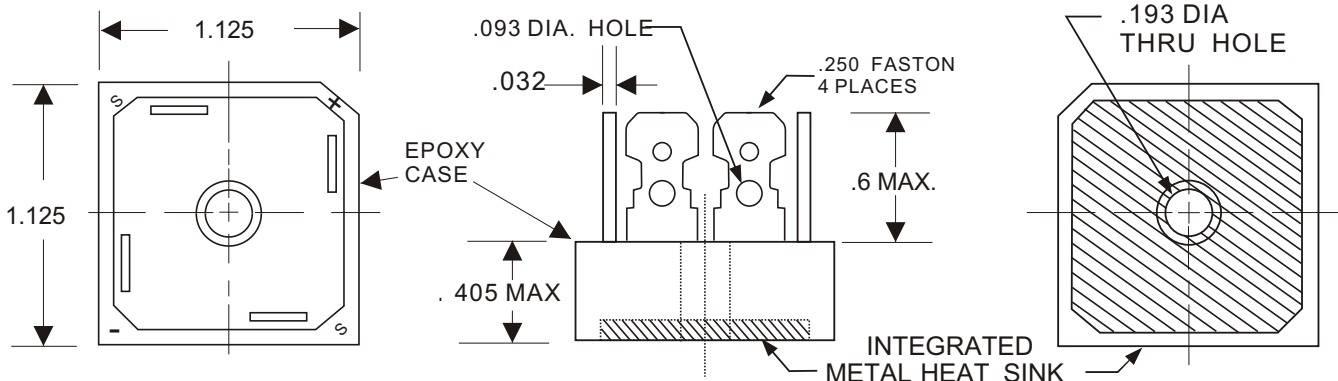
**FIG. 3 REVERSE RECOVERY TEST METHOD**



$R_1, R_2$  NON-INDUCTIVE RESISTORS  
PULSE GENERATOR- HEWLETT  
PACKARD 214A OR EQUIV.  
IKC REP. RATE, 10  $\mu$  SEC. PULSE WIDTH  
ADJUST PULSE AMPLITUDE FOR PEAK  $I_R$

## MPIR40 and FPIR32 MECHANICAL OUTLINE

Dielectric test voltage 2500 volts rms, max. 50-60Hz



1. Corrosion resistant terminals designed for .250 female quick connector, wraparound or solder.
2. A thin film of silicone thermal compound is recommended between the Minibridge® case and mounting surface for improved thermal conduction.
3. Higher dielectric strengths available. Consult factory.

NOTE Maximum lead and terminal temperature for soldering, 3/8 inch from case, 5 seconds at 250 °C

**ELECTRONIC DEVICES, INC.** DESIGNERS AND MANUFACTURERS OF SOLID STATE DEVICES SINCE 1951.  
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e-mail:sales@edidiodes.com \* website: http://www.edidiodes.com