



HEP1601 THRU HEP1606

Isolation 16A Glass Passivated High Efficiency Rectifiers

Voltage Range 50 to 600 Volts
Current 16.0 Amperes

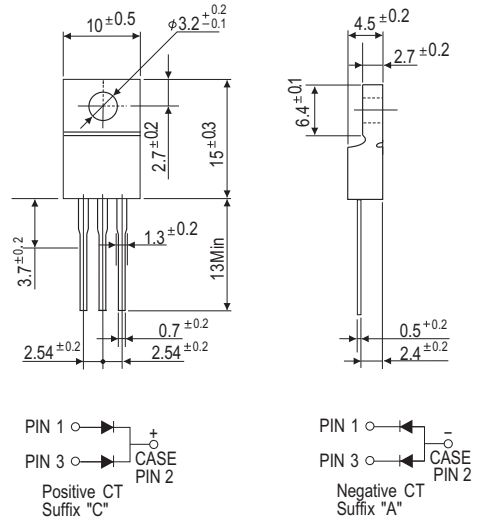
Features

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

Mechanical Data

- * Case: molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Terminals: Leads, solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity: As marked
- * High temperature soldering guaranteed:
250°C/ 0.25", (6.35mm) from case for 10 seconds
- * Mounting torque: 5in - 1bs.max.
- * Weight: 2.24 grams

1 TO-220



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	HEP 1601	HEP 1602	HEP 1603	HEP 1604	HEP 1605	HEP 1606	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	V
Maximum RMS Voltage	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current. @ T _c =100°C	16.0						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	200						A
Maximum Instantaneous Forward Voltage @ 8.0A	1.0				1.3	1.7	V
Maximum DC Reverse Current @ T _A =25°C At Rated DC Blocking Voltage @ T _A =125°C	10.0 100						uA uA
Maximum Reverse Recovery Time (Note 1)	50					80	nS
Typical Junction Capacitance (Note 2)	80					50	pF
Typical Thermal Resistance R _{JC} (Note 3)	2.2						°C/W
Operating Temperature Range T _J	-55 to +150						°C
Storage Temperature Range T _{STG}	-55 to +150						°C

Notes:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
3. Thermal Resistance from Junction to Case Mounting on Heatsink.

[Http://www.upm.com.tw](http://www.upm.com.tw)

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RATINGS AND CHARACTERISTIC CURVES (HEP1601 THRU HEP1606)

FIG . 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

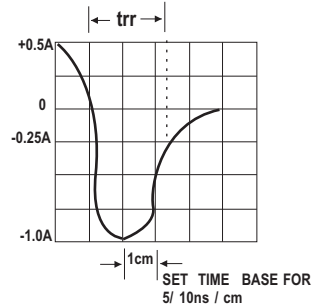
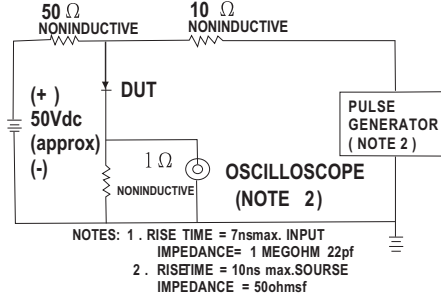


FIG . 2 -MAXIMUM AVERAGE FORWARD CURRENT DERATING CURVE

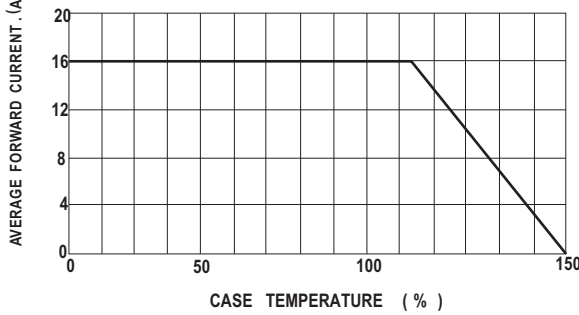


FIG . 3 -TYPICAL REVERSE CHARACTERISTICS

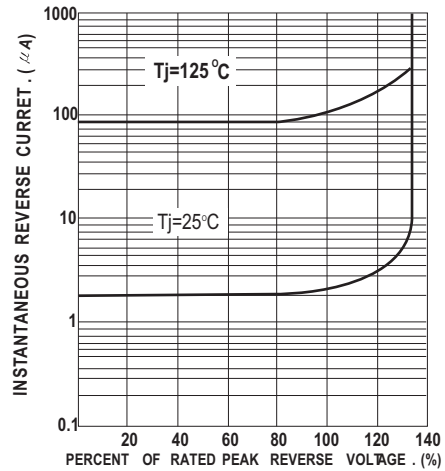


FIG . 4 -MAXIMUM NON - REPETITIVE FORWARD SURGE CURRENT

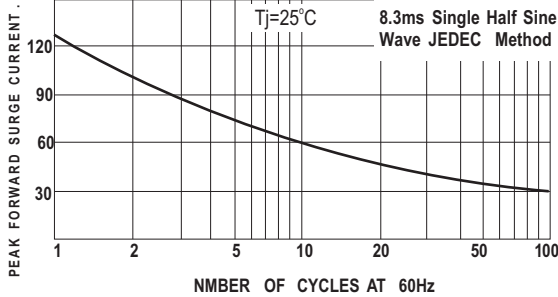


FIG . 5 -TYPICAL JUNCTION CAPACITANCE PER LEG

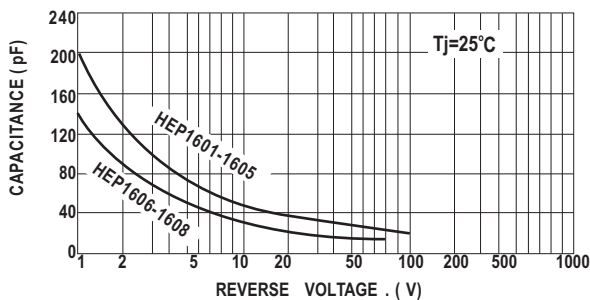


FIG . 6 -TYPICAL FRWARD CHARACTERISTICS

