

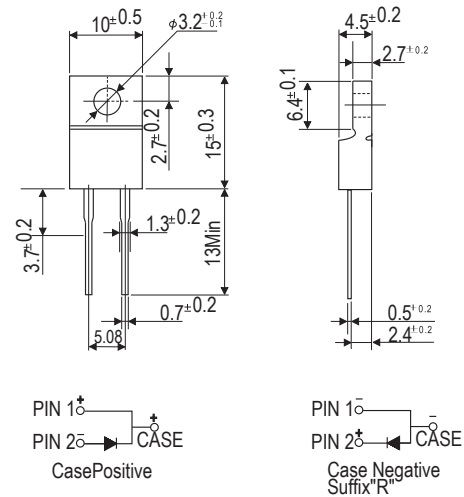
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability
- High reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching
- Low leakage

Mechanical Data

- Case : JEDEC ITO-220A molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : As marked
- Mounting Position : Any
- Weight : 0.08 ounce, 2.24 gram

ITO-220A



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

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

	Symbols	HEP 1601	HEP 1602	HEP 1603	HEP 1604	HEP 1605	HEP 1606	Units
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	300	400	600	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length @ at T _A =100°C	I <sub(av)< sub=""></sub(av)<>	8.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	125						Amps
Maximum instantaneous forward voltage at 8.0A	V _F	1.0			1.3	1.7		Volts
Maximum DC reverse current at rated DC blocking voltage T _A =25°C	I _R	10.0						μA
Maximum DC reverse current at rated DC blocking voltage T _A =125°C		100						
Maximum reverse recovery time (Note 1)	T _{rr}	50				80		ns
Typical junction capacitance (Note 2)	C _J	80				50		pF
Typical thermal resistance (Note 3)	R _{θJC}	2.2						°C/W
Operating junction and storage temperature range	T _J T _{STG}	-55 to +150 -55 to +150						°C

Notes:

- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.
- (3) Thermal resistance from junction to case mounting on heatsink.

RATINGS AND CHARACTERISTIC CURVES HEP1601 THRU HEP1606

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

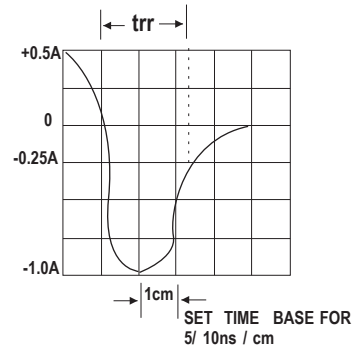
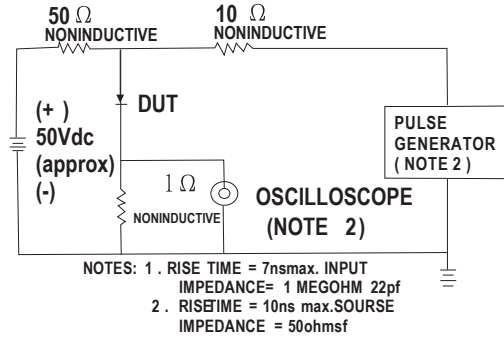


FIG. 2 - MAXIMUM AVERAGE FORWARD CURRENT DERATING CURVE

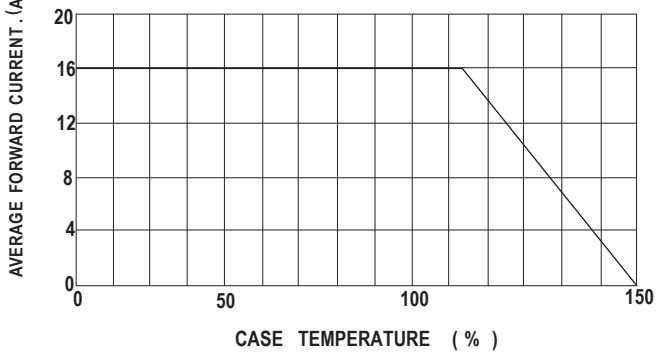


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

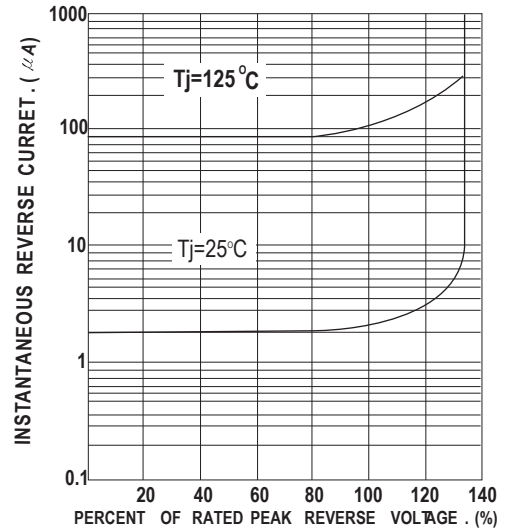


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

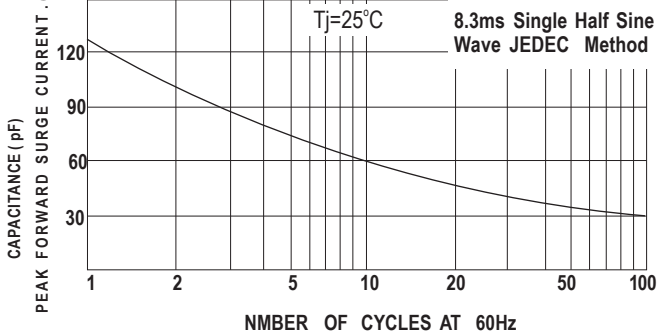


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

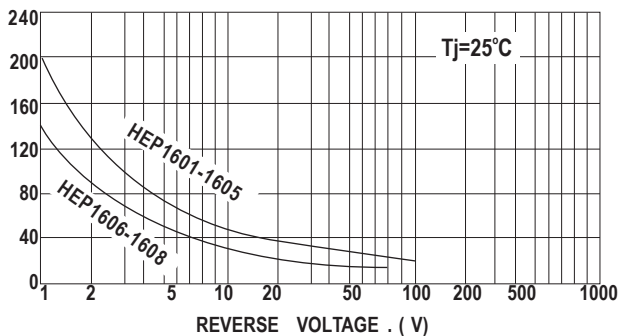


FIG. 6 - TYPICAL FORWARD CHARACTERISTICS

