

HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 100 --- 600 V
CURRENT: 5.0 A

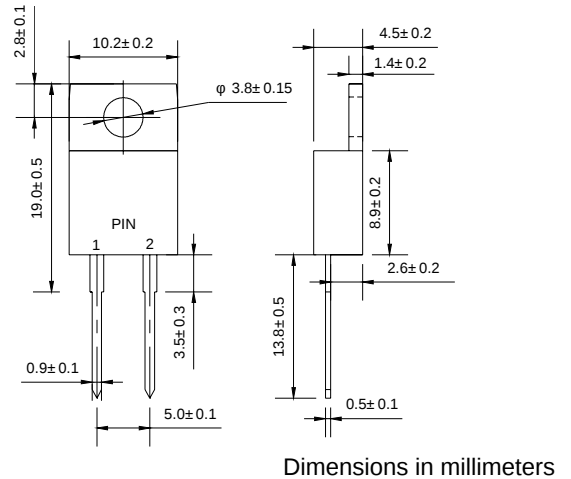
FEATURES

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC TO-220AC, molded plastic body
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.064 ounces, 1.96 gram
- ◇ Mounting position: Any

TO - 220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

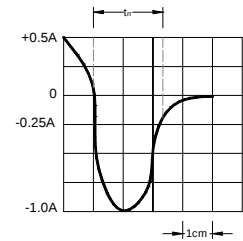
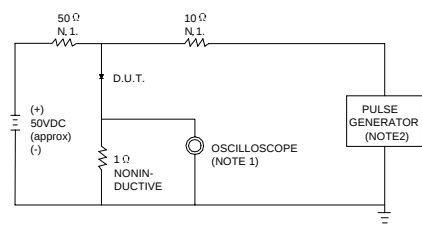
		HER 510T	HER 520T	HER 540T	HER 560T	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	100	200	400	600	V
Maximum RMS voltage	V _{RMS}	70	140	280	420	V
Maximum DC blocking voltage	V _{DC}	100	200	400	600	V
Maximum average forward rectified current 9.5mm lead length, @T _C =75°C	I _{F(AV)}	5.0				A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	100				A
Maximum instantaneous forward voltage @ 5.0A	V _F	1.0		1.3	1.7	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	10 150				μ A
Maximum reverse recovery time (Note1)	t _{rr}	50			100	ns
Typical junction capacitance (Note2)	C _J	40				pF
Typical thermal resistance (Note3)	R _{θJC}	20				°C/W
Operating junction temperature range	T _J	- 55 ---- + 150				°C
Storage temperature range	T _{STG}	- 55 ---- + 150				°C

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_r=0.25\text{A}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient.

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



NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ .22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω .

SET TIME BASE FOR 20/45 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

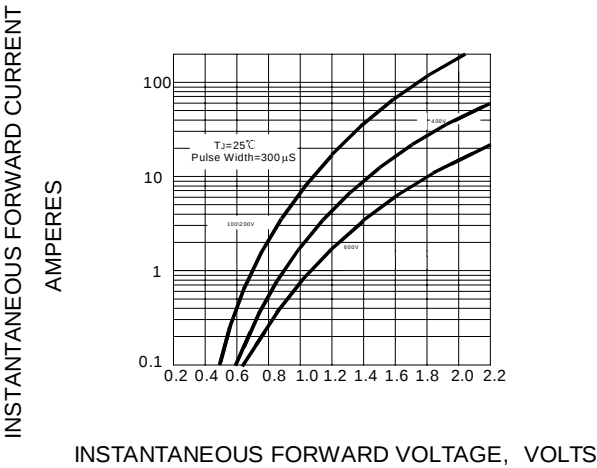


FIG.3 -- FORWARD DERATING CURVE

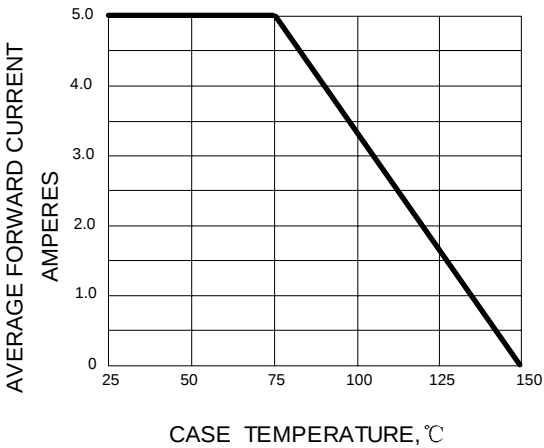


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

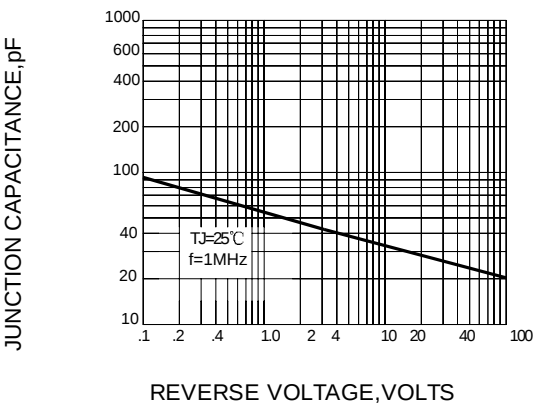


FIG.5 -- PEAK FORWARD SURGE CURRENT

