

FAST RECOVERY RECTIFIERS

VOLTAGE RANGE: 200 --- 800 V
CURRENT: 5.0 A

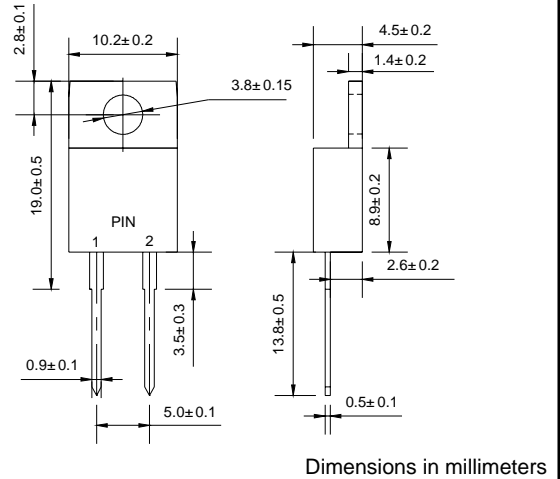
FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon Alcohol, Isopropanol and similar solvents

MECHANICAL DATA

- ◇ Case: JEDEC TO-220AC, molded plastic
- ◇ Terminals: Solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.064 ounce, 1.96 grams

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 50Hz, resistive or inductive load. For capacitive load, derate by 20%.

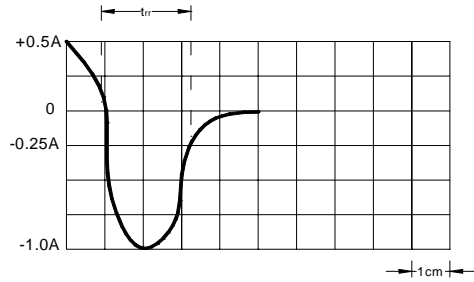
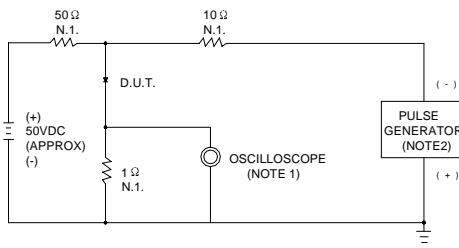
		ERC 20-02	ERC 20-04	ERC 20-06	ERC 20-08	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	V
Maximum average forward rectified current @ $T_c=125^\circ C$	$I_{F(AV)}$	5.0				A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_j=125^\circ C$	I_{FSM}	70				A
Maximum instantaneous forward voltage @ 5.0 A	V_F	1.3		1.5		V
Maximum reverse current at rated DC blocking voltage	I_R	50				μA
Maximum reverse recovery time (Note1)	t_{rr}	400				ns
Typical thermal resistance (Note2)	$R_{\theta JC}$	3.0				$^\circ C/W$
Operating junction temperature range	T_J	-55 ---- + 150				$^\circ C$
Storage temperature range	T_{STG}	-55 ---- + 150				$^\circ C$

NOTE: 1. Measured with $I_F=0.1A$, $I_R=0.1A$.

2. Thermal resistance from junction to case.

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



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

SET TIME BASE FOR 50/100 ns /cm

FIG.2 – FORWARD DERATING CURVE

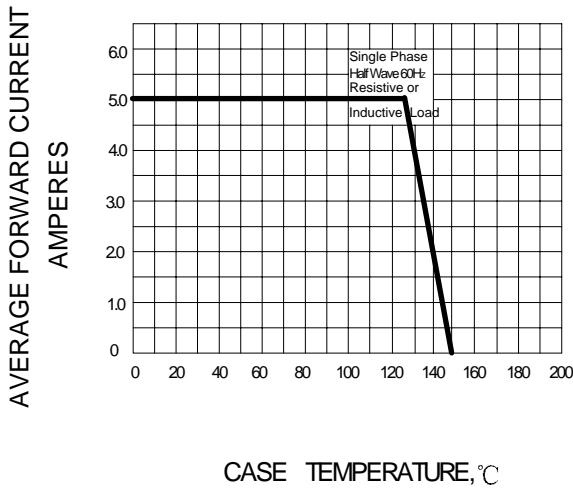


FIG.3 – PEAK FORWARD SURGE CURRENT

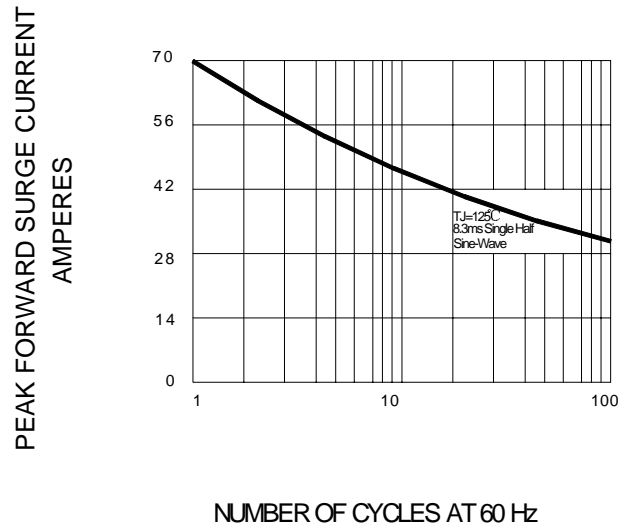


FIG.4 – TYPICAL FORWARD CHARACTERISTIC

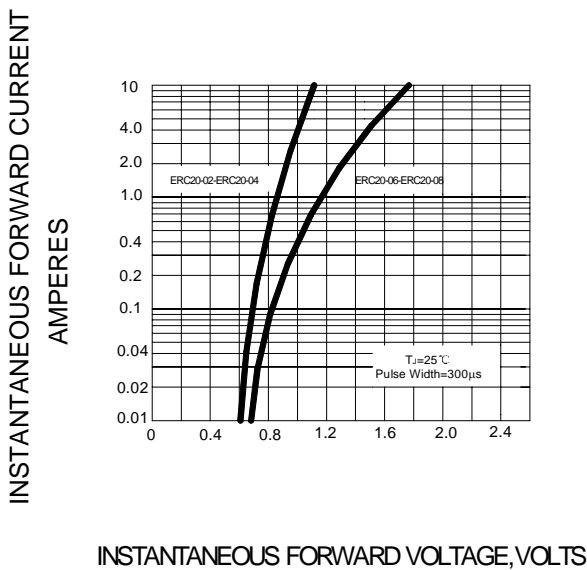


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

