

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 200 --- 800 V
CURRENT: 2.0 A

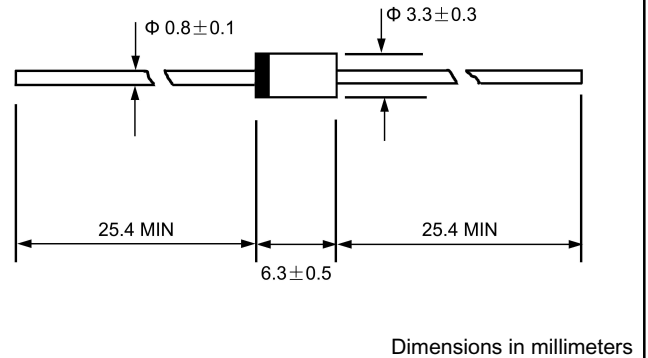
FEATURES

- ◇ 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 DO--15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL- STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.14 ounces, 0.39 grams
- ◇ Mounting position: Any

DO - 15



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%.

		EF202	EF204	EF204	EF208	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	70	280	420	560	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	2.0				A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	50				A
Maximum instantaneous forward voltage @ 2.0A	V_F	0.98	1.3	1.5	1.7	V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	5.0 200				μA
Maximum reverse recovery time (Note 1)	t_{rr}	35	50			ns
Typical junction capacitance (Note 2)	C_J	62				pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	40				$^\circ C/W$
Operating junction temperature range	T_J	- 55 ---- + 150				$^\circ C$
Storage temperature range	T_{STG}	- 55 ---- + 150				$^\circ C$

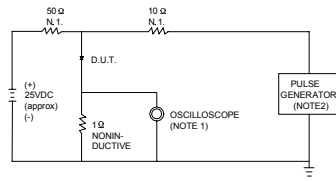
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.

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

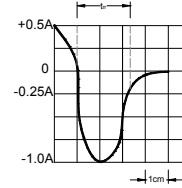
3. Thermal resistance junction to ambient.

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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 15/25 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

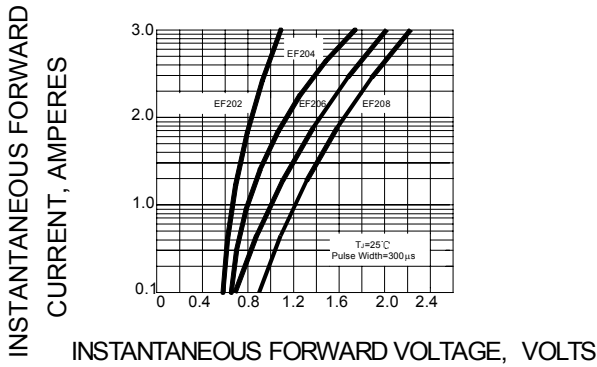


FIG.3 – FORWARD DERATING CURVE

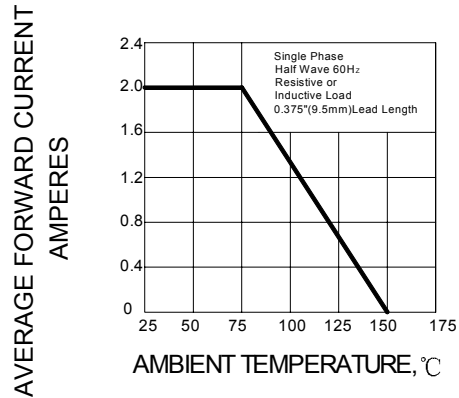


FIG.4 – TYPICAL JUNCTION CAPACITANCE

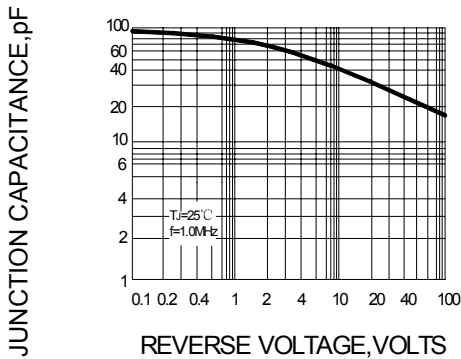


FIG.5 – PEAK FORWARD SURGE CURRENT

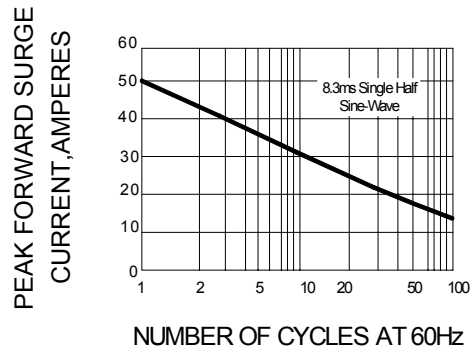


FIG.6 – TYPICAL REVERSE CHARACTERISTICS

