

HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 400 --- 600 V
CURRENT: 1.1 A

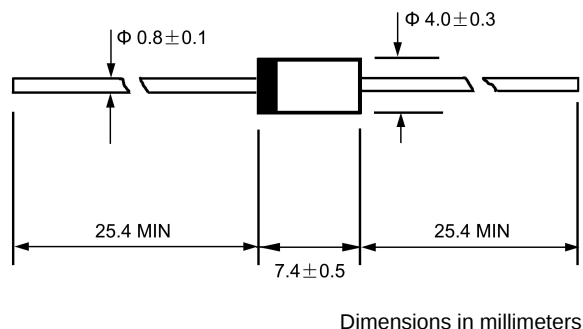
FEATURES

- ◇ 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 DO-15L, molded plastic
- ◇ Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.017 ounces, 0.48 grams
- ◇ Mounting: Any

DO - 15L



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		RU2M	RU2AM	UNITS
Maximum peak repetitive reverse voltage	V_{RRM}	400	600	V
Maximum RMS voltage	V_{RMS}	280	420	V
Maximum DC blocking voltage	V_{DC}	400	600	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.1		A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ\text{C}$	I_{FSM}	20.0		A
Maximum instantaneous forward voltage @ 1.1A	V_F	1.2		V
Maximum reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	10.0 300.0		μA
Maximum reverse recovery time (Note 1)	t_{rr}	100		ns
Typical junction capacitance (Note 2)	C_J	20	15	pF
Typical thermal resistance (Note 3)	$R_{\theta JL}$	15		$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 ----- + 150		$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ----- + 150		$^\circ\text{C}$

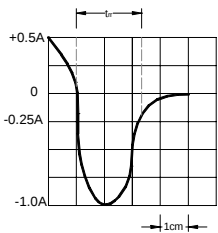
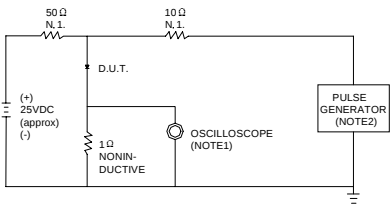
NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

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 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

INSTANTANEOUS FORWARD CURRENT
AMPERES

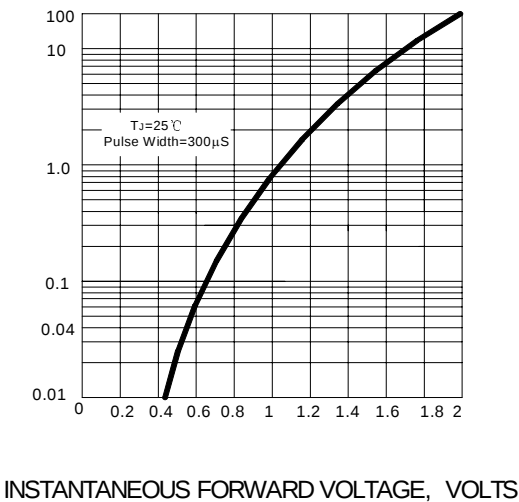


FIG.3 – FORWARD DERATING CURVE

AVERAGE FORWARD RECTIFIED CURRENT
AMPERES

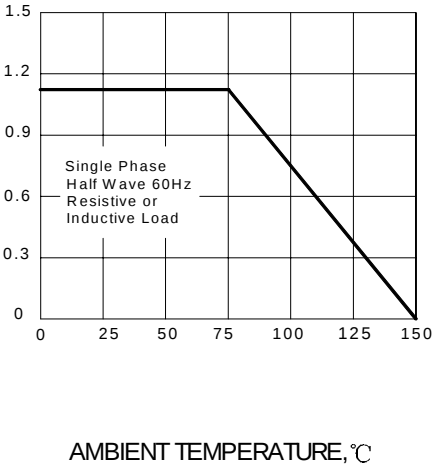


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

PEAK FORWARD SURGE CURRENT
AMPERES

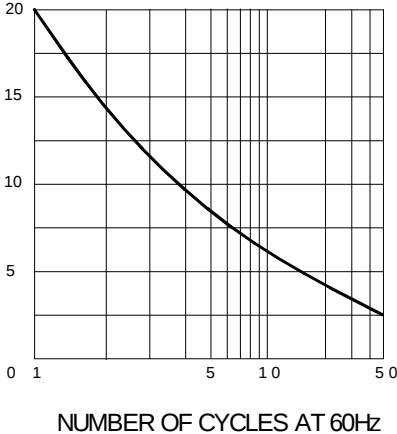


FIG.3 – TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE,pF

