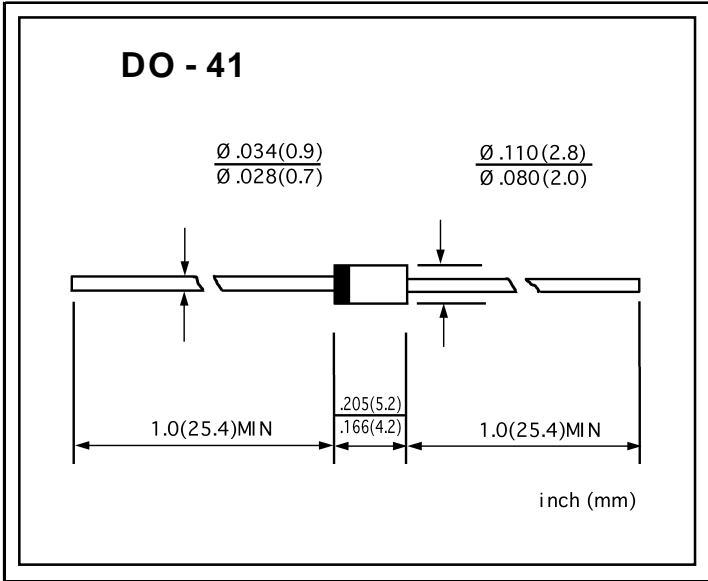


HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE: 700---1000 V CURRENT: 1.0 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 DO-41, molded plastic
 - ◇ Terminals: Axial leads, solderable per MIL-STD-202, Method 208
 - ◇ Polarity: Color band denotes cathode
 - ◇ Weight: 0.012 ounces, 0.34 grams
 - ◇ Mounting: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

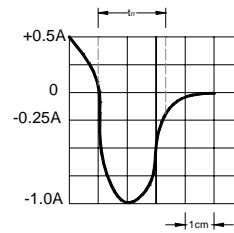
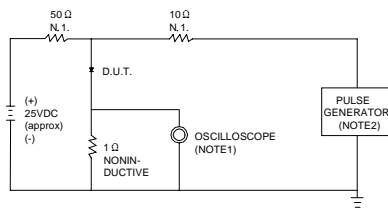
Ratings at 25°C ambient temperature unless otherwise specified.

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

		MUR170	MUR180	MUR190	MUR1100	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	700	800	900	1000	V
Maximum RMS voltage	V_{RMS}	490	560	630	700	V
Maximum DC blocking voltage	V_{DC}	700	800	900	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0				A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	30.0				A
Maximum instantaneous forward voltage @ 1.0A	V_F	1.7				V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	10.0 100.0				μA
Maximum reverse recovery time (Note1)	t_{rr}	75				ns
Typical junction capacitance (Note2)	C_J	15				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	60				$^\circ C/W$
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 from 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 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

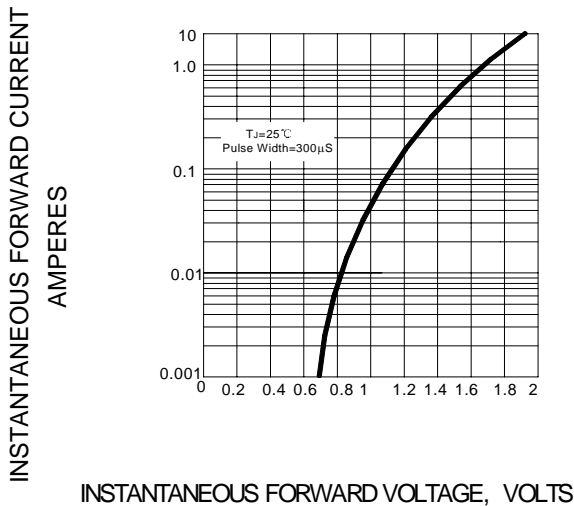


FIG.3 – FORWARD DERATING CURVE

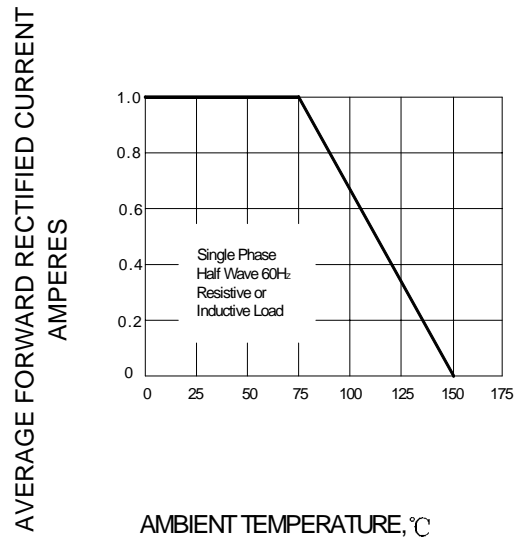


FIG.4 – PEAK FORWARD SURGE CURRENT

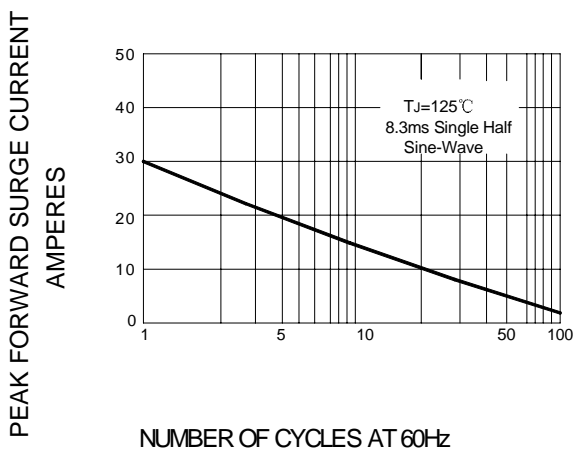


FIG.5 – TYPICAL JUNCTION CAPACITANCE

