

PFS

HIGH EFFICIENCY RECTIFIER

EU1Z(Z)---EU1C(Z)

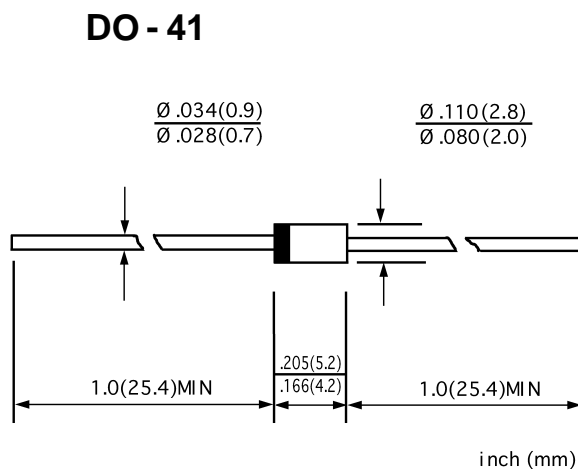
VOLTAGE RANGE: 200--- 1000 V
CURRENT: 0.25,0.5 A

FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ 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,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		EU1Z	EU1	EU1A	EU1C	UNITS
Maximum peak repetitive reverse voltage	V_{RRM}	200	400	600	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	1000	V
Maximum average forward rectified current 9.5mm lead length @ $T_A=75^{\circ}C$	$I_{F(AV)}$	0.25			0.5	A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^{\circ}C$	I_{FSM}	15.0				A
Maximum instantaneous forward voltage @ $I_F=I_{F(AV)}$	V_F	2.5				V
Maximum reverse current @ $T_A=25^{\circ}C$ at Rated DC blocking voltage @ $T_A=100^{\circ}C$	I_R	10.0 150.0				μA
Maximum reverse recovery time (Note1)	t_{rr}	100				ns
Typical junction capacitance (Note2)	C_J	20	15			pF
Typical thermal resistance (Note3)	$R_{\theta JL}$	17				$^{\circ}C/W$
Operating junction temperature range	T_J	- 55 ----- + 150				$^{\circ}C$
Storage temperature range	T_{STG}	- 55 ----- + 150				$^{\circ}C$

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

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

3. Thermal resistance junction to ambient.

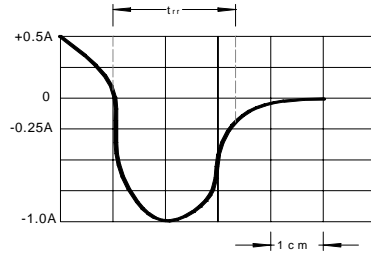
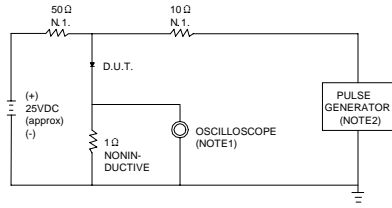
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FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

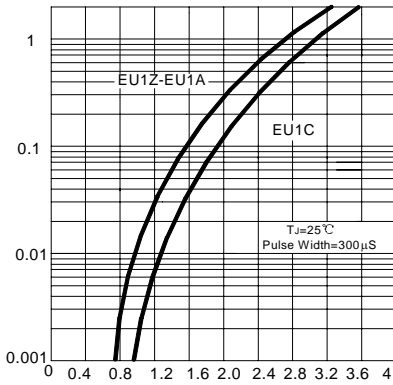


NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1MΩ. 22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

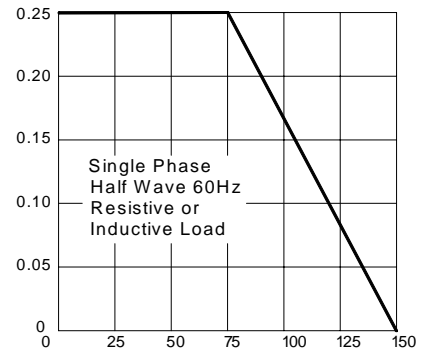
INSTANTANEOUS FORWARD CURRENT AMPERES



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 – FORWARD DERATING CURVE

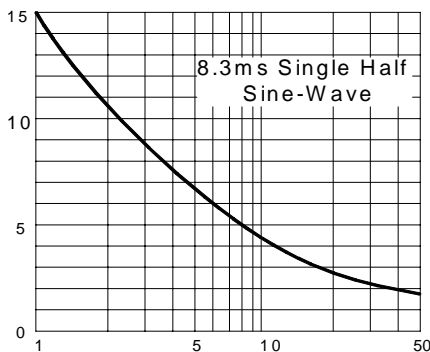
AVERAGE FORWARD RECTIFIED CURRENT AMPERES



AMBIENT TEMPERATURE, °C

FIG.4 – PEAK FORWARD SURGE CURRENT

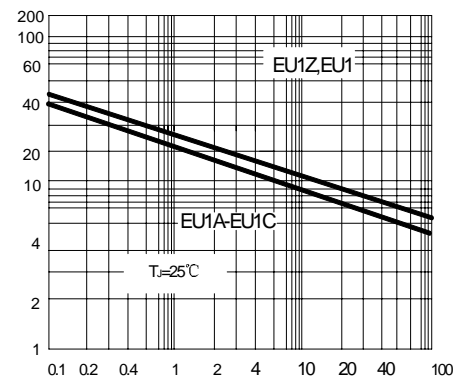
PEAK FORWARD SURGE CURRENT AMPERES



NUMBER OF CYCLES AT 60Hz

FIG.3--TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE,pF



REVERSE VOLTAGE,VOLTS