SUPER FAST RECTIFIERS

VOLTAGE RANGE: 100 --- 600 V
CURRENT: 3.0 A

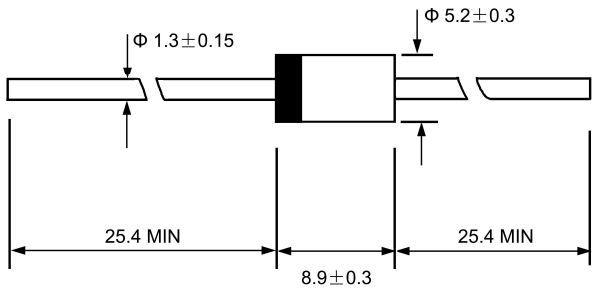
FEATURES

- ◇ 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--27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces,1.15 grams
- ◇ Mounting position: Any

DO - 27



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

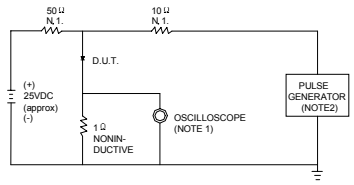
		ER301	ER302	ER303	ER304	ER306	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	100	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	70	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	100	200	300	400	600	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0					A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	150.0					A
Maximum instantaneous forw ard voltage @ 3.0A	V_F	0.95		1.25		1.7	V
Maximum reverse current @T_A=25℃	I_R	5.0					μA
at rated DC blocking voltage @T_A=100℃		300.0					
Maximum reverse recovery time (Note 1)	t_{rr}	35					ns
Typical junction capacitance (Note 2)	C_J	95					pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	20					℃/W
Operating junction temperature range	T_J	- 55 ----- + 150					℃
Storage temperature range	T_{STG}	- 55 ----- + 150					℃

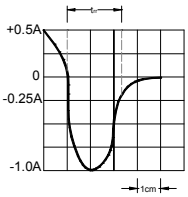
NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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

3.Thermal resistance junction to ambient.

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 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

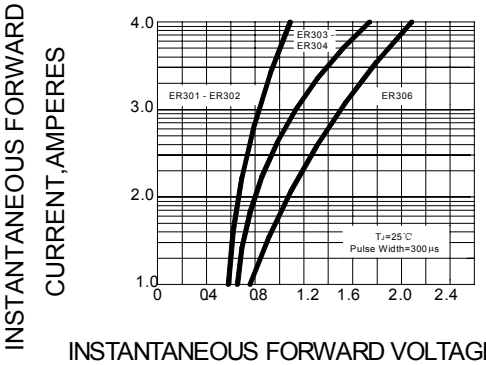


FIG.3 -- FORWARD DERATING CURVE

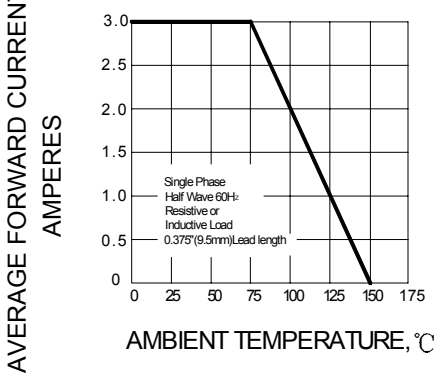


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

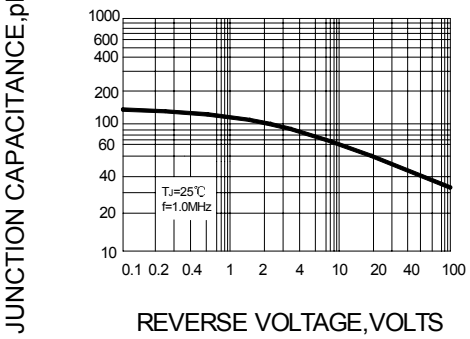


FIG.5 -- PEAK FORWARD SURGE CURRENT

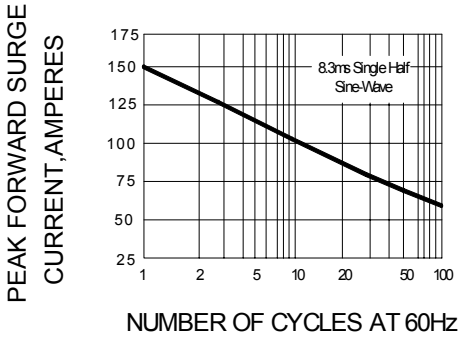


FIG.6 -- TYPICAL REVERSE CHARACTERISTICS

