SUPER FAST RECTIFIERS

VOLTAGE RANGE: 100 --- 600 V CURRENT: 1.0 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--41,molded plastic
- ◇Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇Polarity: Color band denotes cathode
- ◇Weight: 0.012 ounces,0.34 grams
- ◇Mounting position: Any

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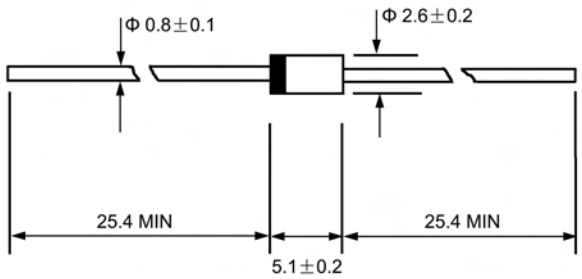


Dimensions in millimeters

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%.

		ER101	ER102	ER103	ER104	ER106	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 forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	30.0					A
Maximum instantaneous forward voltage @ 1.0A	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℃		150.0					
Maximum reverse recovery time (Note 1)	t_{rr}	35					ns
Typical junction capacitance (Note 2)	C_J	22					pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	50					℃/W
Operating junction temperature range	T_J	- 55 ----- + 150					℃
Storage temperature range	T_{STG}	- 55 ----- + 150					℃

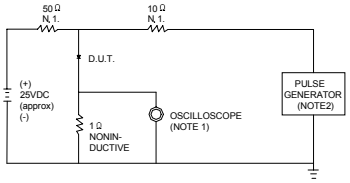
NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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

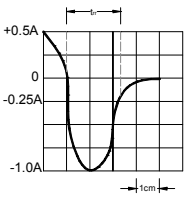
3.Thermal resistance junction to ambient.

RATINGS AND CHARACTERISTIC CURVES

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

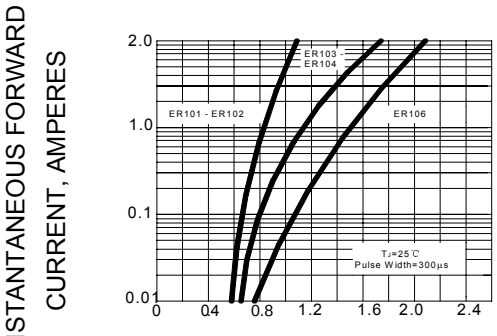


FIG.3 -- FORWARD DERATING CURVE

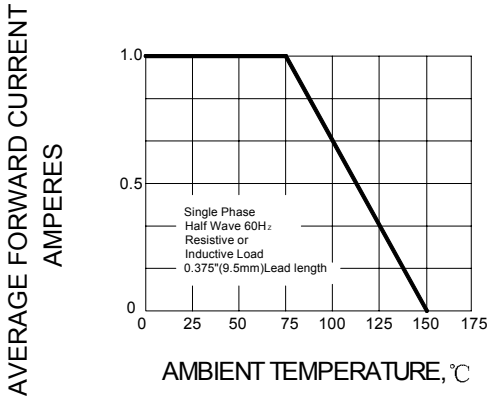


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

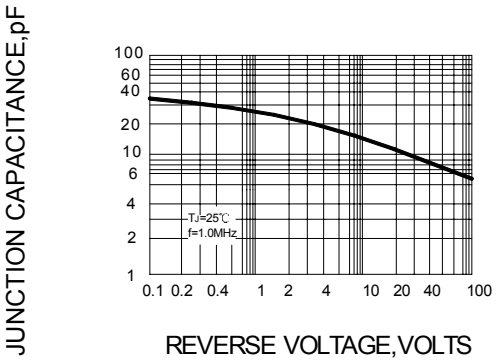


FIG.5 -- PEAK FORWARD SURGE CURRENT

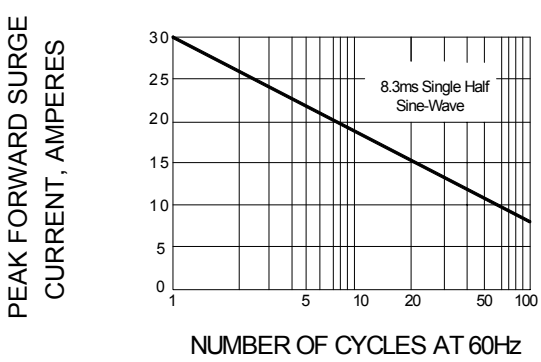


FIG.6 -- TYPICAL REVERSE CHARACTERISTICS