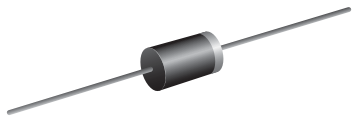
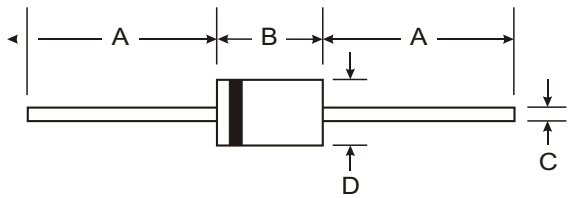
ERA22-02 - ERA22-10

FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 200 - 1000V
CURRENT: 0.5 A





Features

- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon,Alcohol,Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

Mechanical Data

- Case: D O - 4 1
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

RoHS COMPLIANT

DO-41		
Dim	**Min**	**Max**
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

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

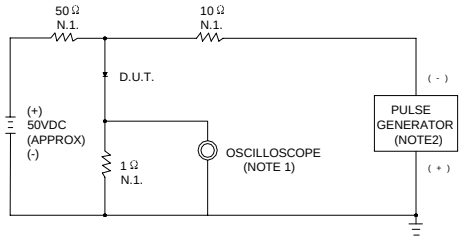
Characteristic	Symbol	ERA22-02	ERA22-04	ERA22-06	ERA22-08	ERA22-10	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	0.5					A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	20.0					A
Maximum instantaneous forw ard voltage @ 0.5 A	V_F	1.3					V
Maximum reverse current @T_A=25℃	I_R	5.0					μA
at rated DC blocking voltage @T_A=100℃		100.0					
Maximum reverse recovery time (Note1)	t_{rr}	400					ns
Typical junction capacitance (Note2)	C_J	12					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	55					℃/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 1.0MH_Z and applied reverse voltage of 4.0V DC.

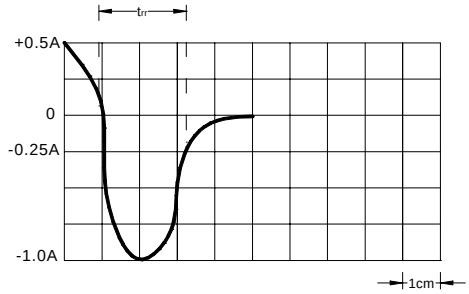
3. Thermal resistance from junction to ambient.

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



NOTES:1.RISE TIME =7ns MAX. INPUT IMPEDANCE=1MΩ.22pF

2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω



SET TIME BASE FOR 50/100 ns /cm

FIG.2– PEAK FORWARD SURGE CURRENT

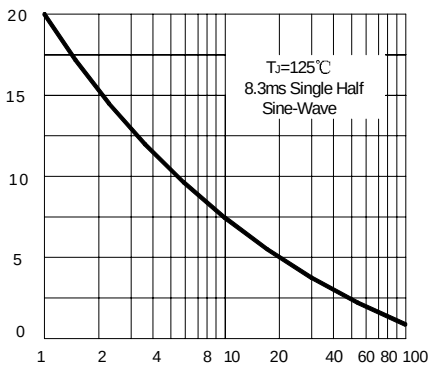


FIG.3– FORWARD DERATING CURVE

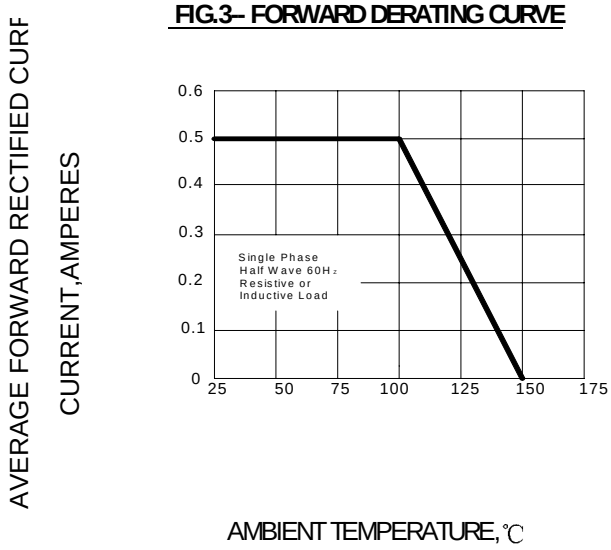


FIG.4 – CURRENT DERATING CURVE

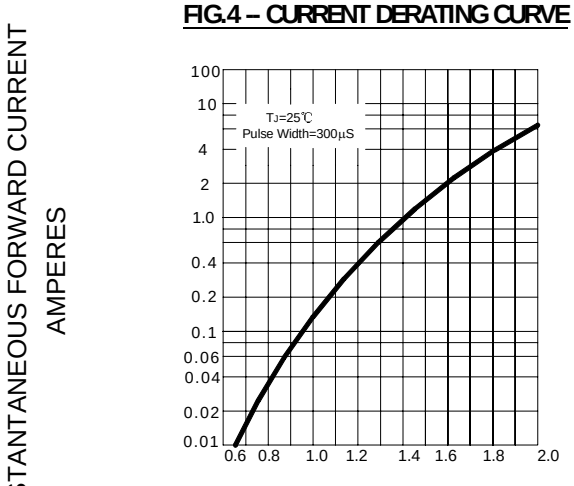


FIG.5--TYPECAL JUNCTION CAPACITANCE