

VOLTAGE RANGE: 200- 1500V

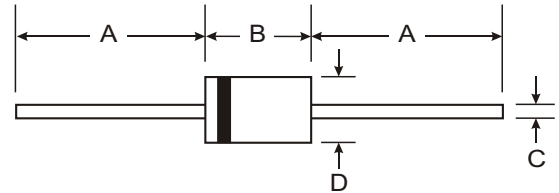
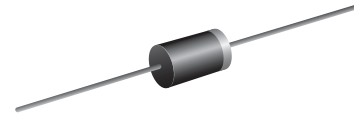
CURRENT: 0.7A

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: DO-41 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



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%.

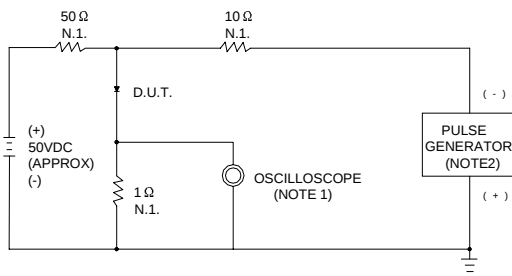
Characteristic	Symbol	ES1Z	ES1	ES1A	ES1F	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	200	400	600	1500	V
Maximum RMS voltage	V _{RMS}	140	280	420	1050	V
Maximum DC blocking voltage	V _{DC}	200	400	600	1500	V
Maximum average forward rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	0.7				A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	30.0				A
Maximum instantaneous forward voltage @ 0.5/0.7A	V _F	2.5				V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0 100.0				μA
Maximum reverse recovery time (Note1)	t _{rr}	350				ns
Typical junction capacitance (Note2)	C _J	15				pF
Typical thermal resistance (Note3)	R _{θJA}	50				°C/W
Operating junction temperature range	T _J	-55----+150				°C
Storage temperature range	T _{STG}	-55---- +150				°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 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

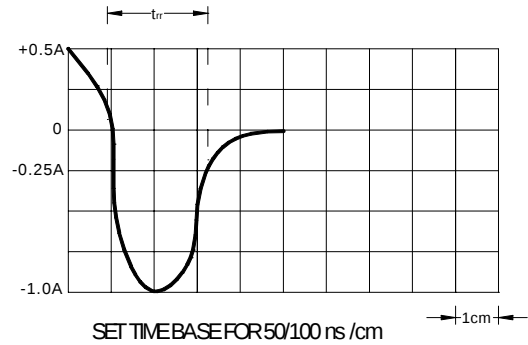


FIG.2 – FORWARD DERATING CURVE

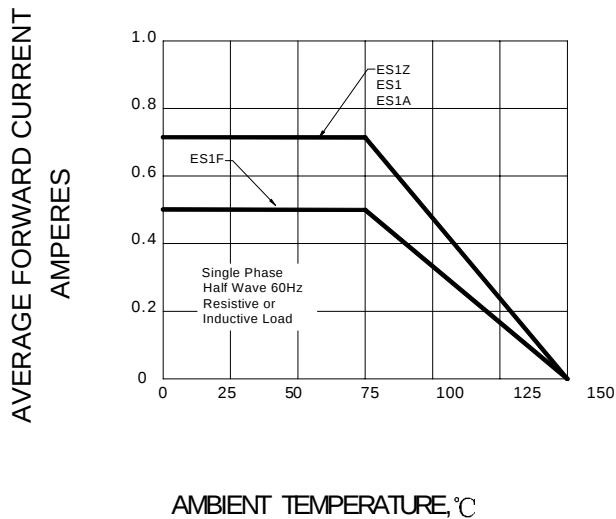


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

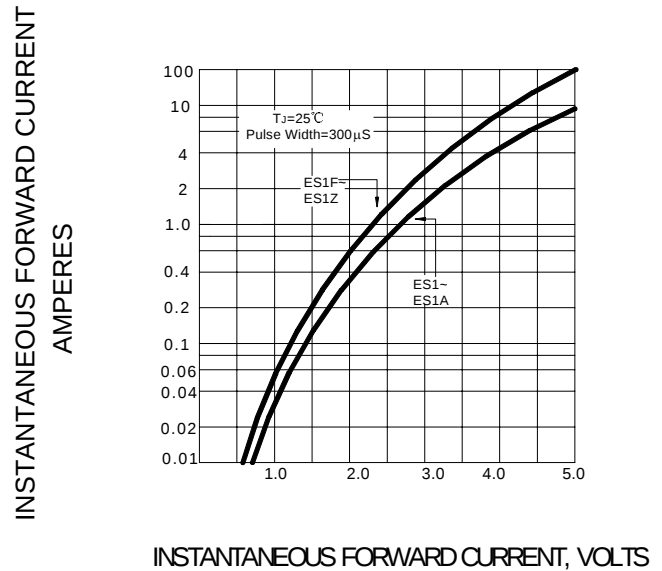


FIG.4- PEAK FORWARD SURGE CURRENT

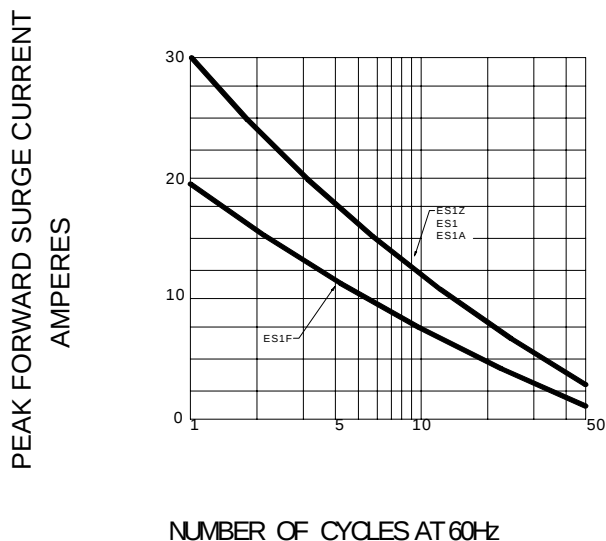


FIG.5- TYPICAL JUNCTION CAPACITANCE

