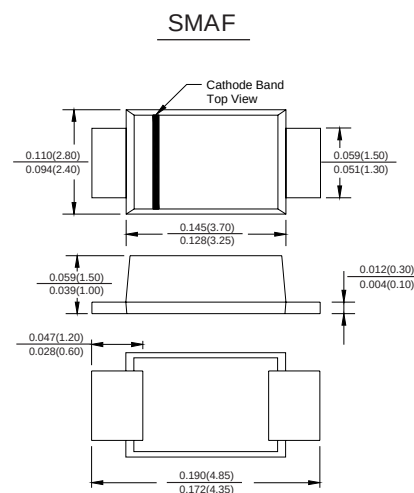


FEATURES

- ✧ 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: SMAFL molded plastic
- ✧ Terminals: Solder able per MIL- STD-202,Method 208
- ✧ Polarity: Color band denotes cathode
- ✧ Mounting position: Any



Dimensions in inches and (millimeters)

Maximum Ratings(@TA = 25°C unless otherwise specified)

Characteristic	Symbol	ES1AFA	ES1BFA	ES1CFA	ES1DFA	ES1EFA	ES1GFA	ES1HFA	ES1JFA	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current @T _A =75°C	$I_{F(AV)}$	1.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I_{FSM}	30								A

Thermal Characteristics

Characteristic	Symbol	ES1AFA	ES1BFA	ES1CFA	ES1DFA	ES1EFA	ES1GFA	ES1HFA	ES1JFA	UNITS
Typical junction capacitance (Note2)	C_J	19								p F
Typical thermal resistance (Note3)	$R_{\theta JA}$	50								°C/W
Operating junction temperature range	T_J	- 55 ---- + 150								°C
Storage temperature range	T_{STG}	- 55 ---- + 150								°C

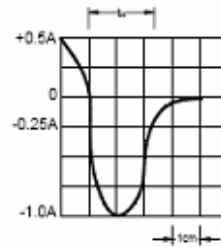
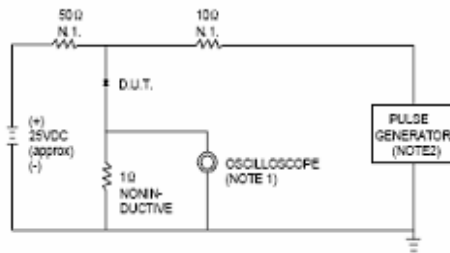
Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	ES1AFA	ES1BFA	ES1CFA	ES1DFA	ES1EFA	ES1GFA	ES1HFA	ES1JFA	UNITS
Maximum instantaneous forward voltage at1.0 A	V _F	0.98				1.25		1.70		V
Maximum reverse current @T _A =25℃ at rated DC blocking voltage @T _A =125℃	I _R	5.0 200								μ A
Maximum reverse recovery time (Note1)	t _{rr}	35								ns

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 4.0VDC

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 = 50Ω.

SET TIME BASE FOR 10/15 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

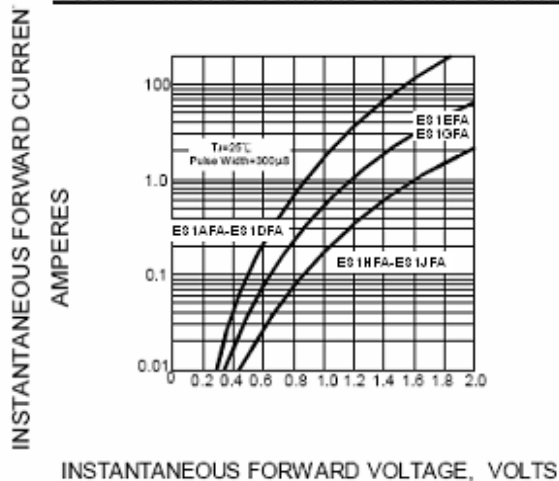


FIG.3 -- FORWARD DERATING CURVE

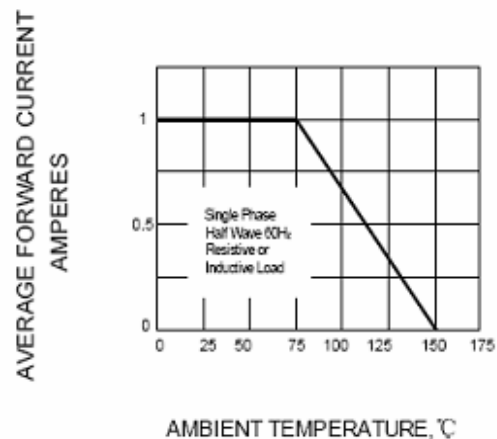


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

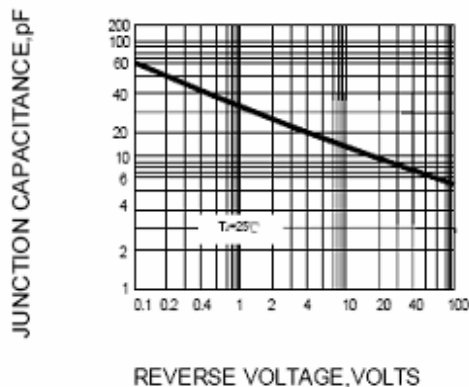
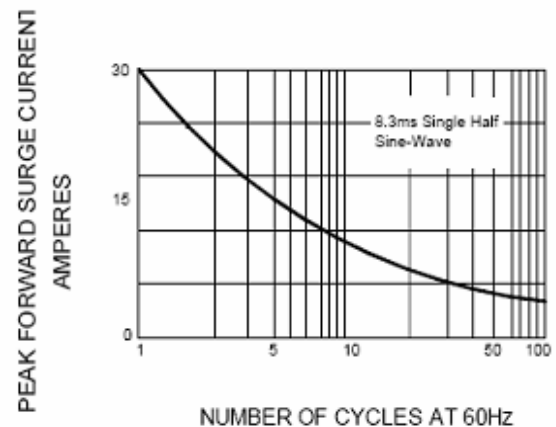


FIG.5 -- PEAK FORWARD SURGE CURRENT



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	3000/REEL	80000	36X30.6X31	12.00	11.00