



### ES2ABF THRU ES2JBF

VOLTAGE RANGE

50 to 600 Volts

CURRENT

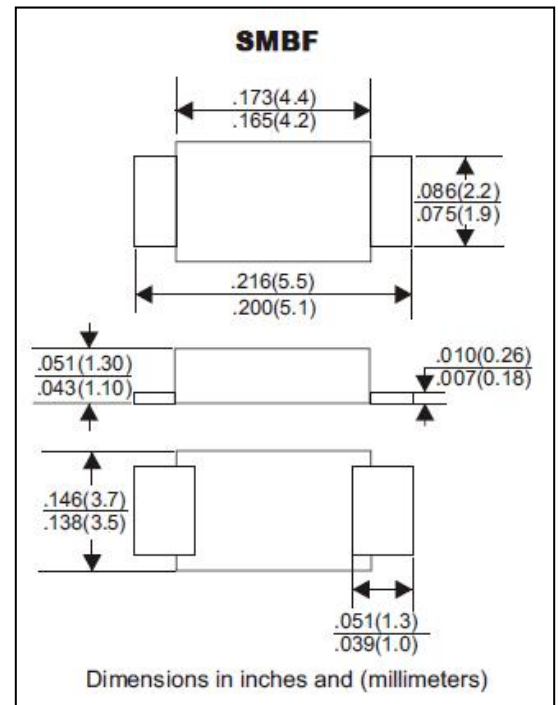
2.0 Ampere

### Features

- Fast recovery glass passivated chip
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:  
260°C/10S at terminals
- Component in accordance to  
ROHS 2002/95/1 and WEEE 2002/96/EC

### Mechanical Data

- Case: JEDEC SOD-123FL mold plastic  
Body over glass passivated chip
- Terminals: Solder plated, solderable per  
J-STD-002B and JESD22-B102D
- Polarity: Laser band denote cathode band
- Weight: 0.0036ounce, 0.102grams



### Maximum Ratings and Electrical Characteristics

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

TYPE NUMBER	SYMBOLS	ES 2ABF	ES 2BBF	ES 2CBF	ES 2DBF	ES 2FBF	ES 2GBF	ES 2JBF	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current See Fig.1	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							Amps
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.00			1.30		1.70		Volts
Maximum DC Reverse Current at rated DC blocking voltage at	$T_A = 25^\circ C$	5.0							$\mu$ Amps
	$T_A = 125^\circ C$	100							
Maximum Reverse Recovery Time (NOTE 1)	$T_{RR}$	35							nS
Typical Junction Capacitance (NOTE 3)	$C_J$	60							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	75							$^\circ C/W$
	$R_{\theta JL}$	30							
Operating Junction Temperature	$T_J$	(-55 to +150)							$^\circ C$
Storage Temperature Range	$T_{STG}$	(-55 to +150)							$^\circ C$

#### Notes:

1. Reverse Recovery Test Conditions:  $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$ .
2. Polyimide PCB, 0.043"×0.047"(1.10mm×1.20mm). Copper, minimum recommended pad layout per.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V.



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### Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

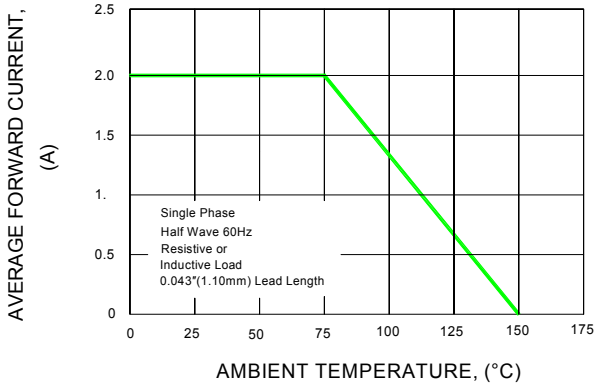


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

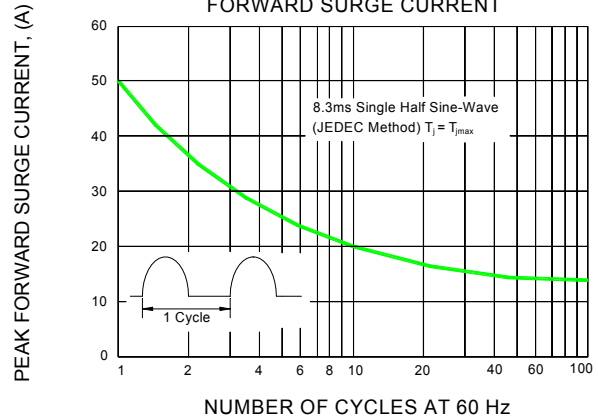


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

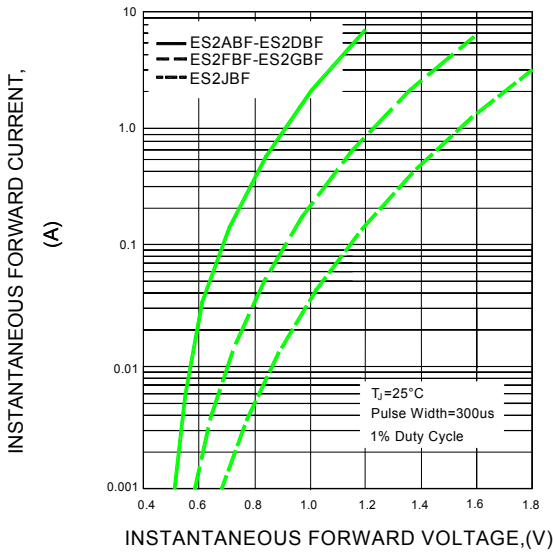


FIG.4-TYPICAL REVERSE CHARACTERISTICS

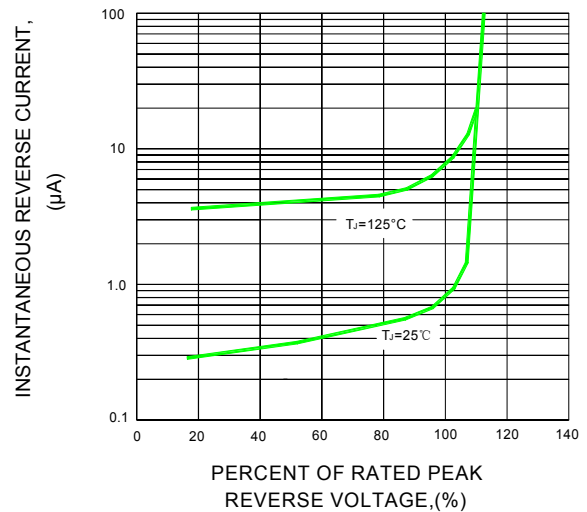


FIG.5-TYPICAL JUNCTION CAPACITANCE

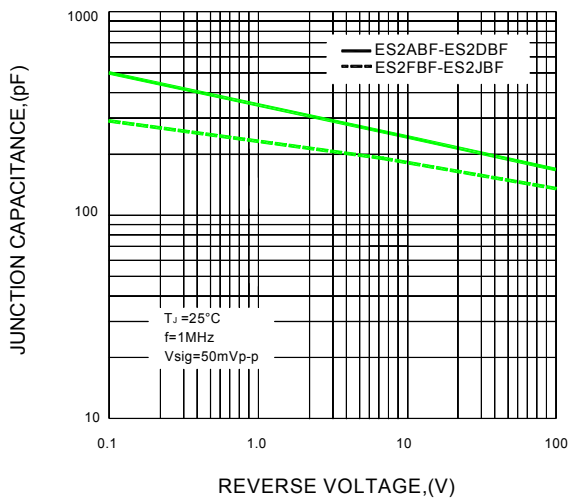
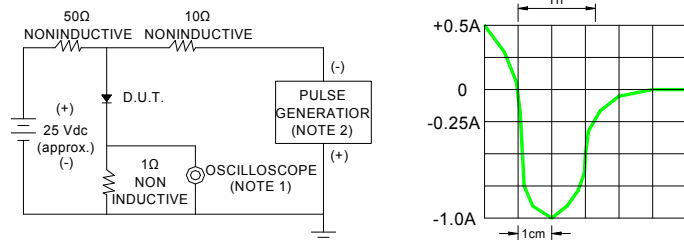


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1. Rise Time = 7ns max. Input Impedance = 1 magohm. 22pF  
 2. Rise time = 10ns max. Source Impedance = 50 ohms

SET TIME BASE FOR 50/100ns/cm