HFZT

ES2A-ES2J

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50--- 600 V CURRENT: 2.0 A

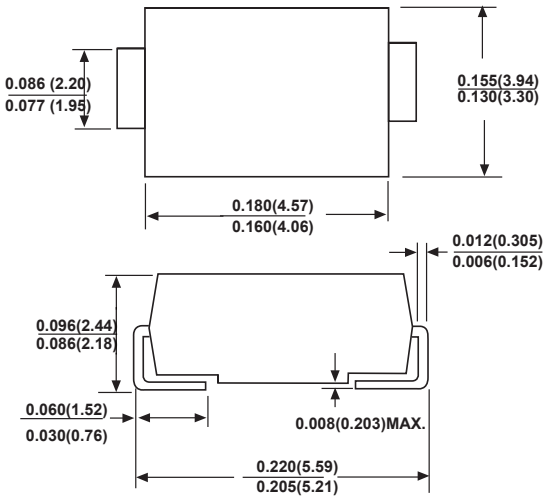
FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Super fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 C/10 seconds at terminals

MECHANICAL DATA

- Case: SMB molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

SMB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

		ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2H	ES2J	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	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at T_A=75℃	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0								A
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.0				1.3		1.7		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}	35.0								ns
Typical junction capacitance (Note2)	C_J	15.0								pF
Typical thermal resistance(Note3)	$R_{\theta JA}$	60.0								℃/W
Operating junction temperature range	T_j	- 55 ---- + 125								℃
Storage temperature range	T_{STG}	- 55 ---- + 150								℃

Note: 1.Reverse recovery condition I_F=0.5A,I_R=1.0A,I_{rr}=0.25A

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

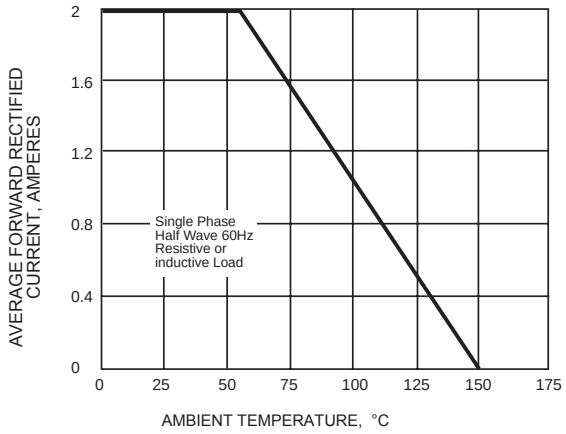

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

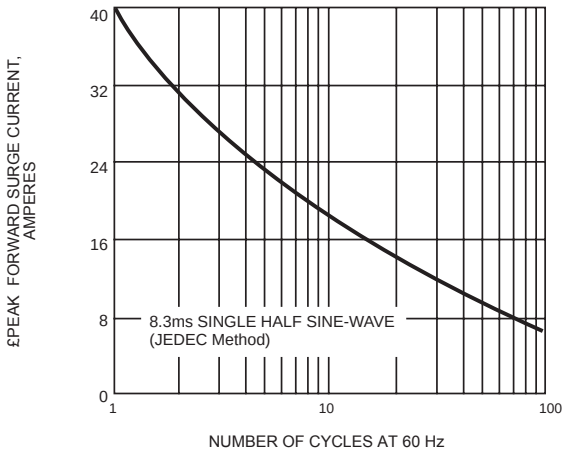

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

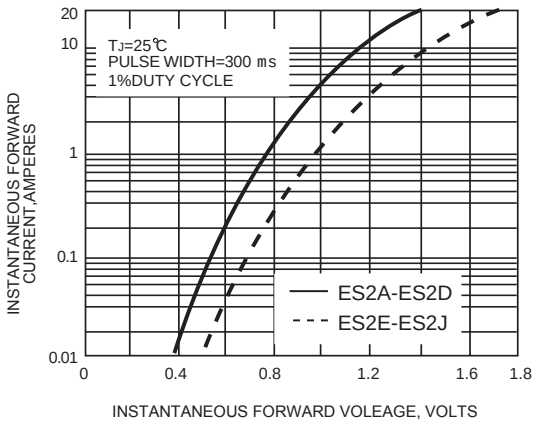

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

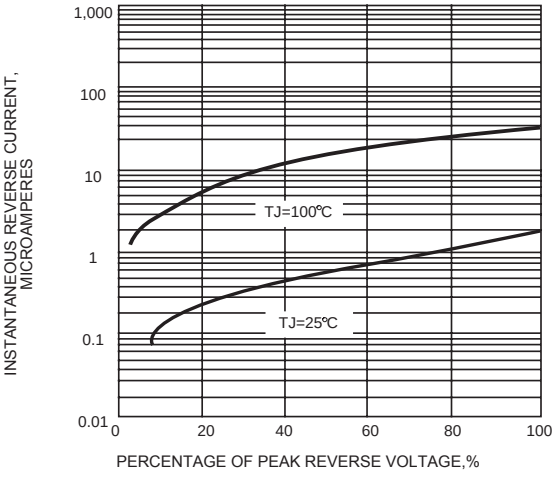

FIG. 5-TYPICAL JUNCTION CAPACITANCE

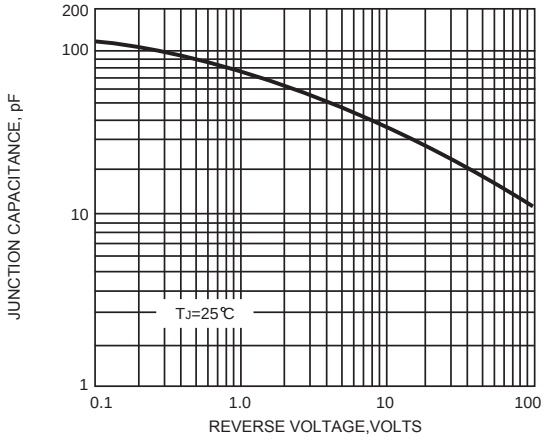

FIG. 6-TYPICAL TRANSIENTTHERMAL IMPEDANCE