



ES2A THRU ES2J

2.0 AMP. SUPER FAST SURFACE MOUNT RECTIFIERS

Voltage Range
50 to 600 Volts
Current
2.0 Amperes

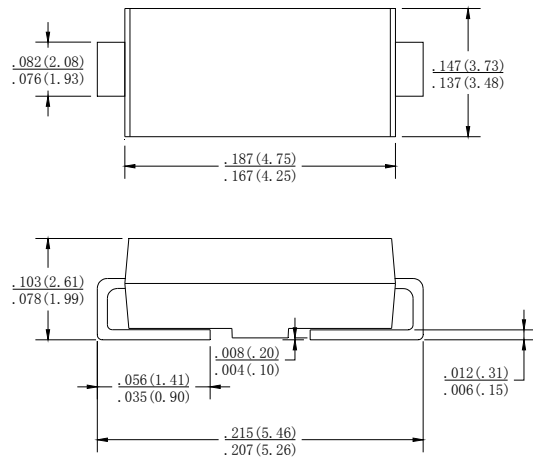
Features

- Glass passivated junction chip
- For surface mounted application
- Low profile package
- Built-in strain relief,
- Ideal for automated placement
- Easy pick and place
- Super fast recovery time for high efficiency
- Glass passivated chip junction
- High temperature soldering:
260°C /10 seconds at terminals
- Plastic material used carries Underwriters
Laboratory Classification 94V-0

Mechanical Data

- Case: molded plastic
- Terminals: Solder plated
- Polarity: Indicated by cathode band
- Packaging: 12mm tape EIA STD RS-481
- Weight: 0.093gram

SMB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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		ES2A	ES2B	ES2C	ES2D	ES2F	ES2G	ES2H	ES2J	UNITS
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	V
Maximum DC blocking Voltage	VDC	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current See Fig. 2	IF(AV)	2.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	50								A
Maximum Instantaneous Forward Voltage @2.0A	VF	0.95				1.3		1.7		V
Maximum DC Reverse Current @ TA=25°C at rated DC blocking voltage @ TA=100°C	IR					10 350				μ A
Maximum Reverse Recovery Time (Note 1)	TRR					35				nS
Typical Thermal Resistance (Note 2)	R θ JA					75				°C / W
	R θ JL					20				
Operating Temperature Range	TJ					-55 to +150				°C
Storage Temperature Range	TSTG					-55 to +150				°C

NOTES: 1. Reverse Recovery Test conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

2. Units Mounted on P.C.B. 0.4 x 0.4" (10 x 10mm) Pad Areas.

RATING AND CHARACTERISTIC CURVES ES2A THRU ES2J



FIG.1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

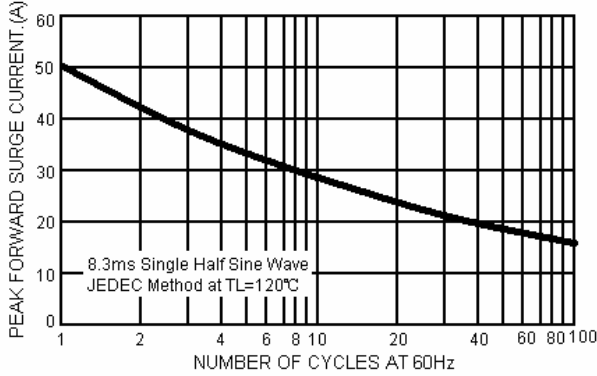


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

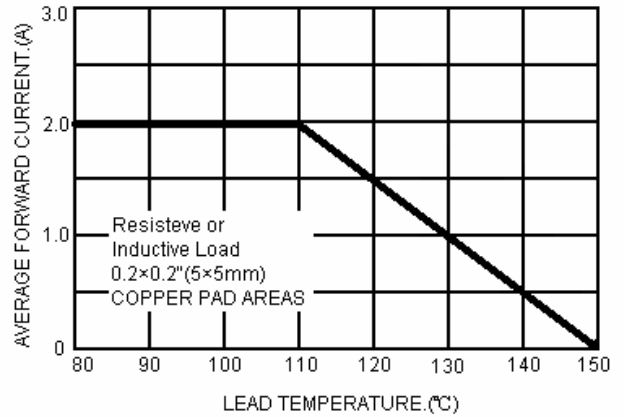


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

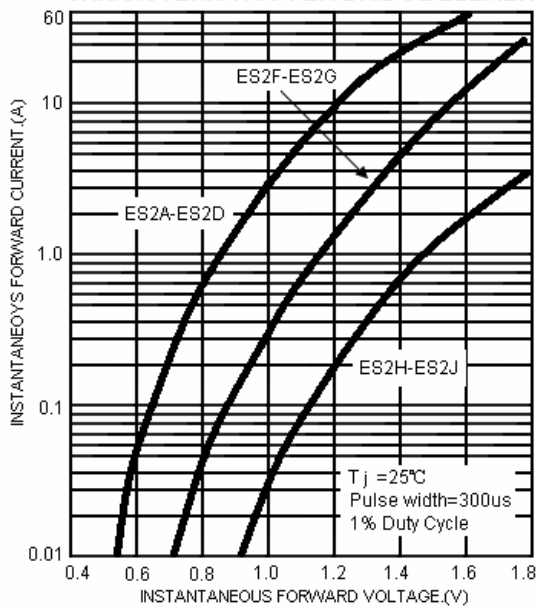


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

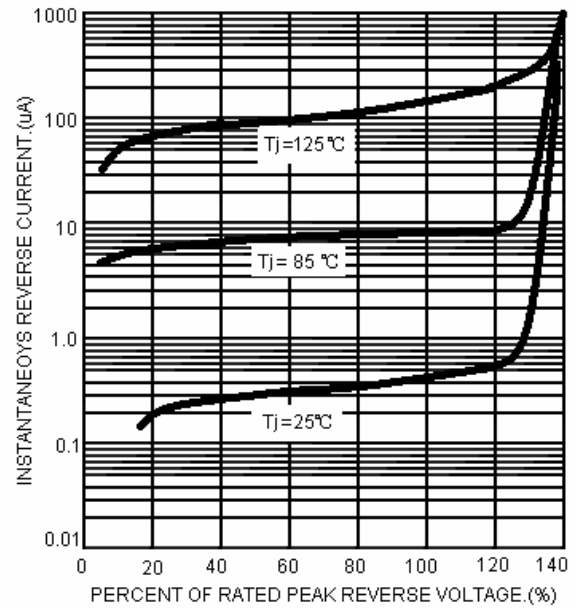
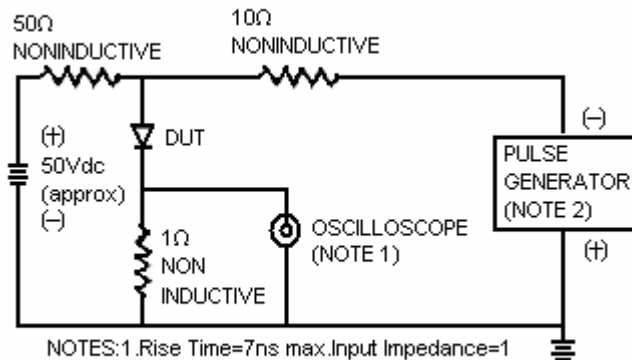


FIG.5-REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm 22pf
2. Rise Time = 10ns max. Source Impedance = 50 ohms

