

Pb Free Plating Product

ES1A thru ES1J



1.0 AMPERE SURFACE MOUNT SUPER FAST RECTIFIERS

Features

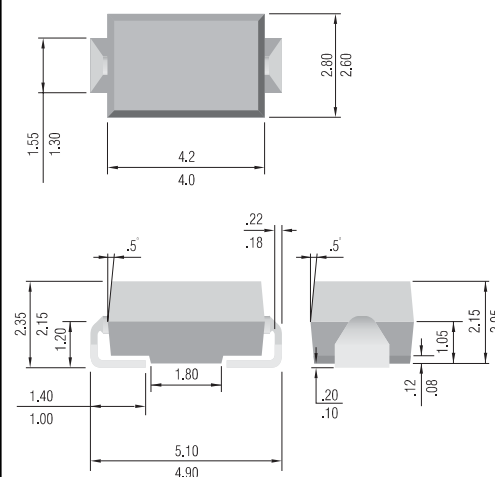
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Easy pick and place
- For surface mounted application
- Low profile package
- Built-in strain relief
- Superfast recovery times for high efficiency
- High temperature soldering : 250°C/10 seconds at terminals.

Mechanical Data

- **Case:** DO-214AC(SMA-W), molded plastic
- **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026 guaranteed
- **Polarity:** Color band denotes cathode end

SMA-W

Unit:(mm)



Absolute Maximum Ratings and 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%.

	Symbols	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	Units
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current T _L = 75 °C	I _{F(AV)}	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
Maximum forward voltage at 1.0A	V _F	0.95				1.25		1.70	V
Maximum reverse current at T _A = 25°C at rated DC blocking voltage at T _A = 100°C	I _R	5.0							uA
	I _R	100							
Typical Junction Capacitance at V _R = 4.0 V, f = 1 MHz	C _J	10							pF
Typical Reverse Recovery Time at I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	t _{rr}	35							ns
Typical thermal resistance (Note 1)	R _{θJL}	35							°C/W
Operating junction and storage temperature range	T _J ,T _S	-55 to +150							°C

Notes:1. Thermal resistance from junction to lead mounted on P.C.B. with 0.3 X 0.3" (8.0 X 8.0 mm) copper pad areas.

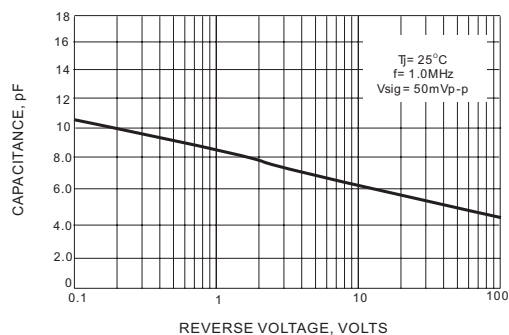


FIG.1 TYPICAL JUNCTION CAPACITANCE

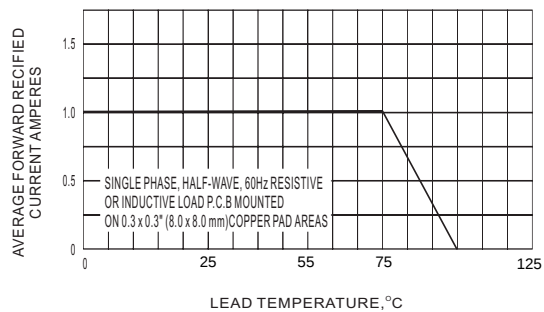


FIG.2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

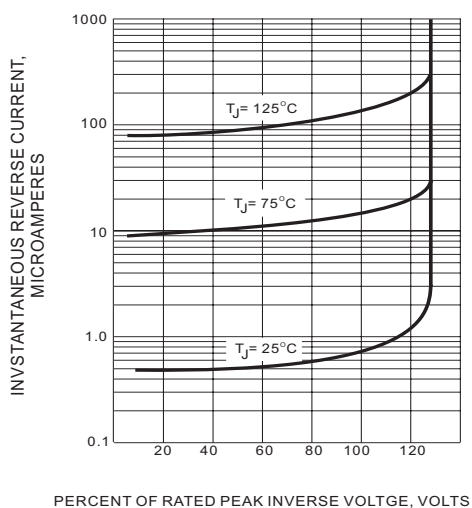


FIG.3 TYPICAL REVERSE CHARACTERISTICS

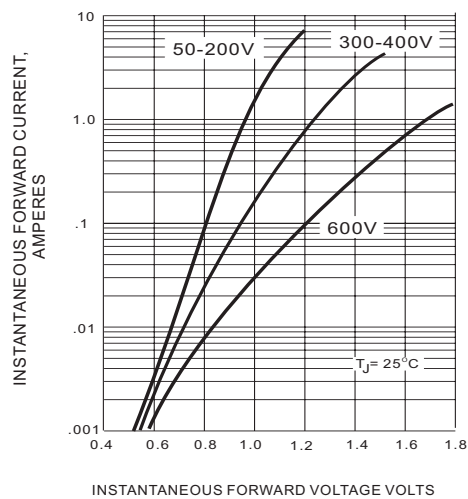


FIG.4 TYPICAL FORWARD CHARACTERISTICS

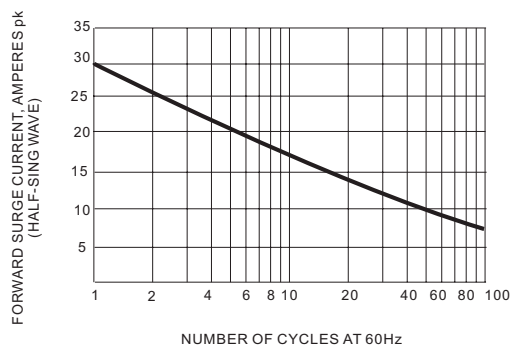


FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT