



## ES1AG THRU ES1JG

**PINGWEI ENTERPRISE 1.0AMP. GLASS PASSIVATED SUPER FAST SURFACE MOUNT RECTIFIER**

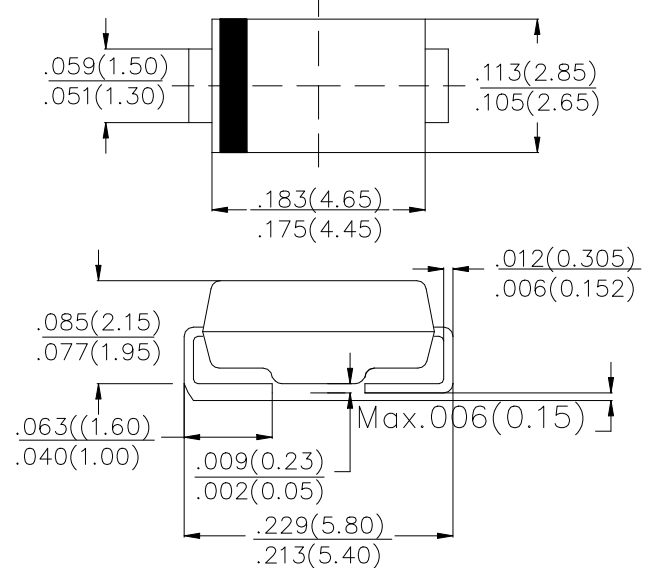
### FEATURE

- . High current capability
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.
- . Superfast recovery time for high efficiency.
- . For surface mounted application.
- . Easy pick and place.

### MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity: Color band denotes cathode end
- . Packaging: 12mm tape per EIA STD RS-481
- . Mounting position: Any
- . Weight: 0.074 grams

### SMA (DO-214AC)



Dimensions in inches and (millimeters)

### 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	SYM BOL	ES1AG	ES1BG	ES1DG	ES1GG	ES1JG	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Rectified Current at $T_C=90^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30.0					A
Maximum Forward Voltage at 1.0A DC	$V_F$	0.95		1.3		1.7	V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5.0 100.0					$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	35					nS
Typical Junction Capacitance (Note 2)	$C_J$	20			8		pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	85					$^\circ\text{C}/\text{W}$
	$R_{(JC)}$	20					
Storage Temperature	$T_{STG}$	-55 to +150					$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +150					$^\circ\text{C}$

#### Note:

1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Measured on P.C.Board with  $0.6 \times 0.6''$  ( $15.0 \times 15.0\text{mm}$ ) Copper Pad Areas.

# RATING AND CHARACTERISTIC CURVES (ES1AG THRU ES1JG)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

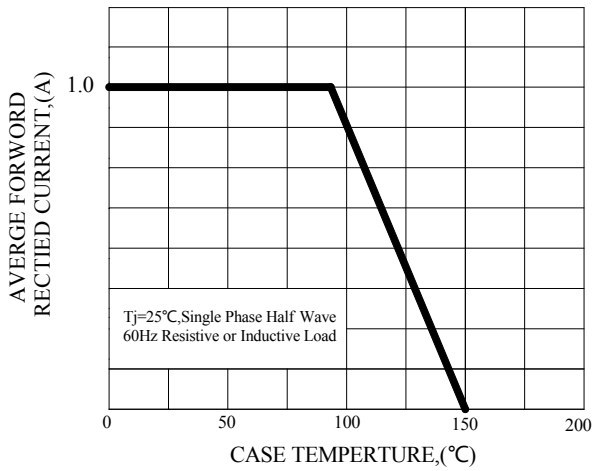


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

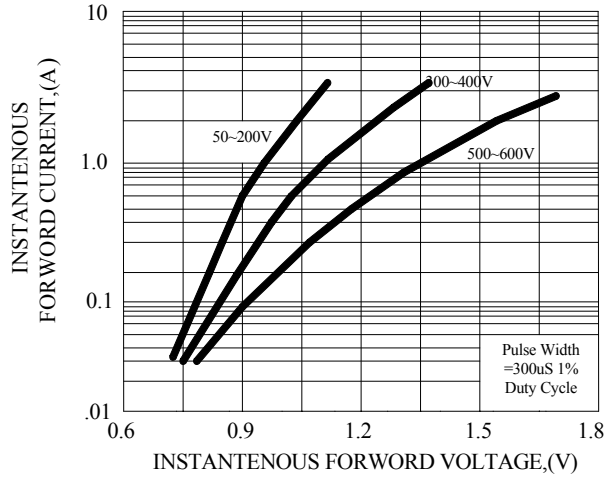


FIG.3-MAXIMUM NON-REPEITIVE FORWARD SURGE CURRENT

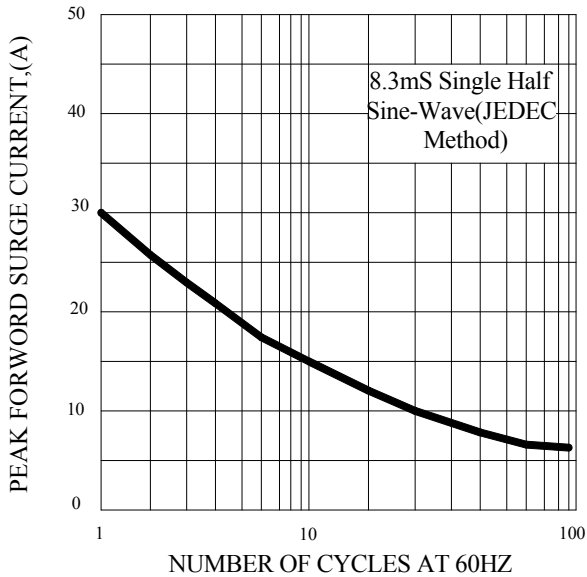


FIG.4-TYPICAL REVERSE CHARACTERISTICS

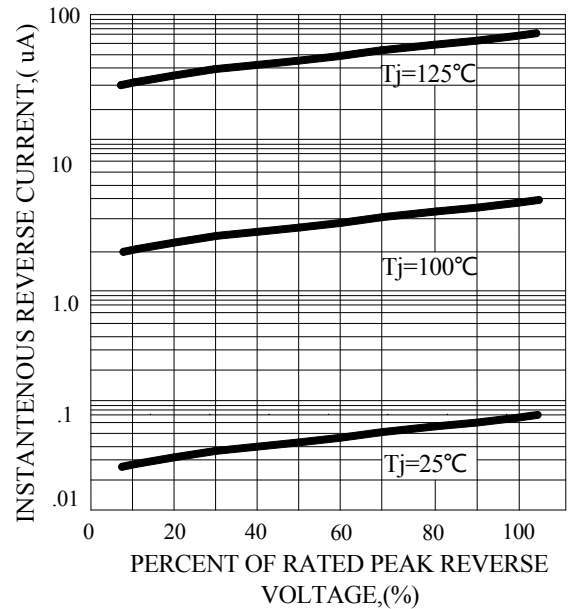


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

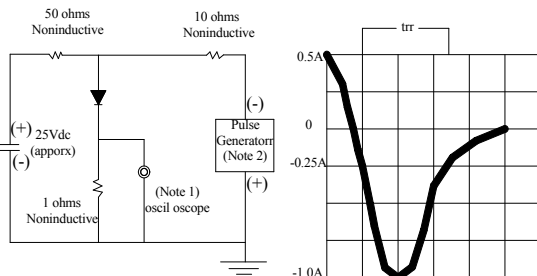


FIG.6-TYPICAL JUNCTION CAPACITANCE

