

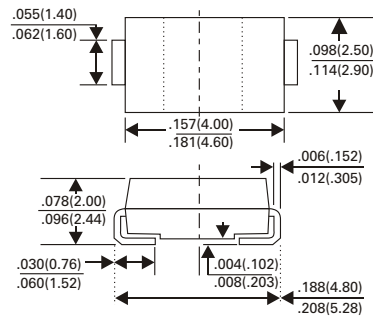
# ES2AA thru ES2JA

## SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE - 50 TO 600 VOLTS CURRENT - 2.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

### FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS Environment substance directive request

### MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic  
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity : Indicated by cathode band  
 Standard packaging : 16mm tape (EIA-481)  
 Weight : 0.093grams

### 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%

	SYMBOL	ES2AA	ES2BA	ES2CA	ES2DA	ES2FA	ES2GA	ES2HA	ES2JA	UNITS	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	Volts	
Maximum Average Forward Rectified Current @ $T_L = 100^\circ C$	$I_{(AV)}$	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	$V_F$	0.95			1.3		1.7			Volts	
Maximum DC Reverse Current @ $T_J = 25^\circ C$ at Rated DC Blocking Voltage @ $T_J = 100^\circ C$	$I_R$					10		350			$\mu A$
Maximum Reverse Recovery Time (NOTE 1)	$T_{RR}$					35					nS
Typical Junction Capacitance (NOTE 2)	$C_J$	25			20						pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$					75		20			$^\circ C / W$
Operating and Storage Temperature Range	$T_J$ $T_{STG}$					-55 to +150				$^\circ C$	

NOTES :

1. Reverse Recovery Test Conditions  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$
2. Measured at 1 MHz and applied reverse voltage of 4.0VDC
3. Units Mounted on P.C.B. 0.2" X 0.2" (5mm X 5mm) Pad Areas

# ES2AA thru ES2JA

## SURFACE MOUNT SUPERFAST RECTIFIER

### RATING AND CHARACTERISTICS CURVES ES2AA THRU ES2JA

FIG.1-MAXIMUM AVERAGE FORWARD CURRENT DERATING CURVE

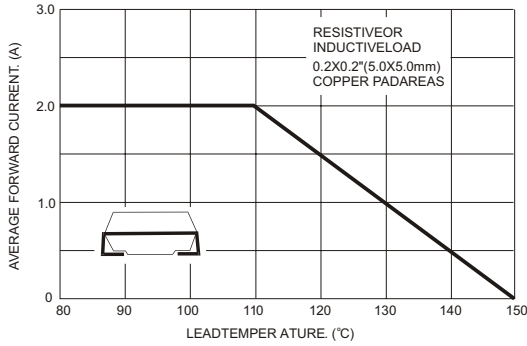


FIG.2-TYPICAL REVERSE CHARACTERISTICS

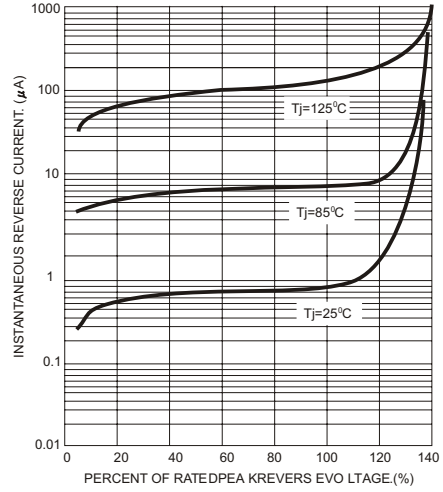


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

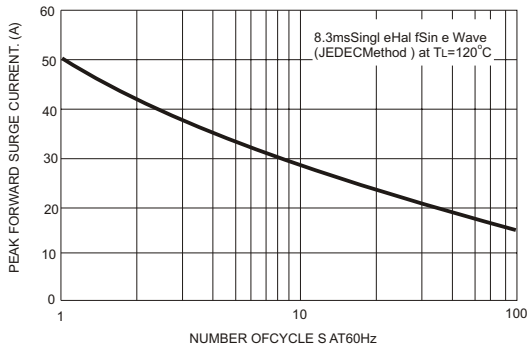


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

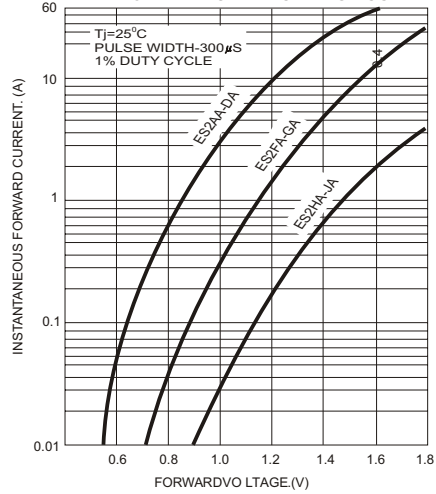


FIG.4-TYPICAL JUNCTION CAPACITANCE

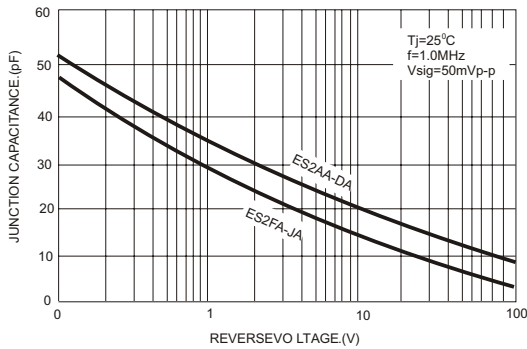


FIG.6-REVERSE RECOVERY TIME CHARACTERISTICS TEST CIRCUIT DIAGRAM

