



# ES8AC THRU ES8JC

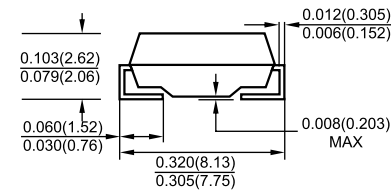
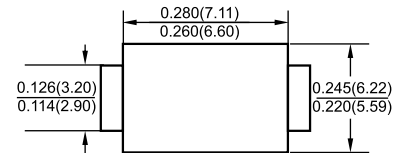
SMD Super Fast Recovery Rectifiers

Reverse Voltage: 50 to 600 Volts

Forward Current: 8 Amp



## SMC/DO-214AB



Dimensions in inches and (millimeters)

## FEATURES

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Metal-Silicon Junction
- For surface mount applications
- Guard ring for over voltage protection
- High forward surge current capability
- Super Low forward voltage
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

## MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-750 method 2026
- Mounting position: Surface Mounted
- Weight: 0.007 ounce, 0.25 grams

## 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%

Parameter	Symbol	ES8AC	ES8BC	ES8CC	ES8DC	ES8EC	ES8GC	ES8JC	UNIT
<b>Marking code</b>		ES8A	ES8B	ES8C	ES8D	ES8E	ES8G	ES8J	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	8.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	200							Amps
Maximum Instantaneous Forward Voltage at 5.0A (Note 1)	$V_F$	0.95		1.25		1.70		Volts	
Maximum DC Reverse Current at rated DC Blocking Voltag	$T_A = 25^\circ C$	5							$\mu A$
	$T_A = 125^\circ C$	300							
Maximum reverse recovery time(Note 2)	$T_{rr}$	35							ns
Operating Temperature Range	$T_J$	-55 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

### Notes:

1. Pulse test: 300 $\mu s$  pulse width, 1% duty cycle
2. Test conditions :  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$



## RATINGS AND CHARACTERISTIC CURVES

Fig.1 - Max. Average Forward Current Rating

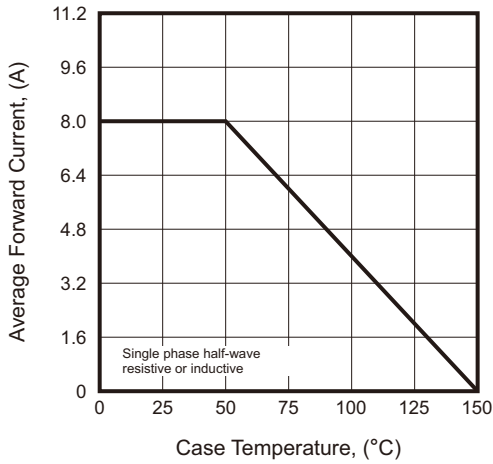


Fig.2 - Typical Reverse Characteristics

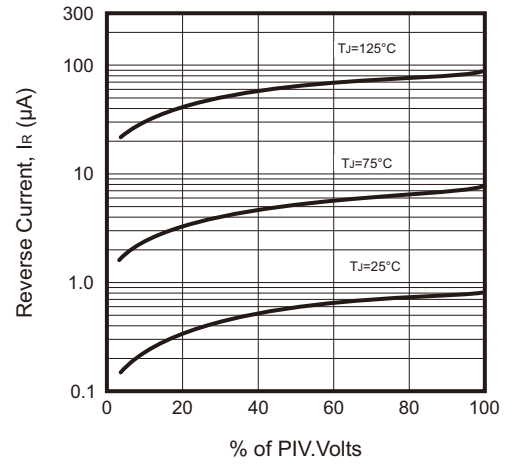


Fig.3 - Typical Forward Characteristic

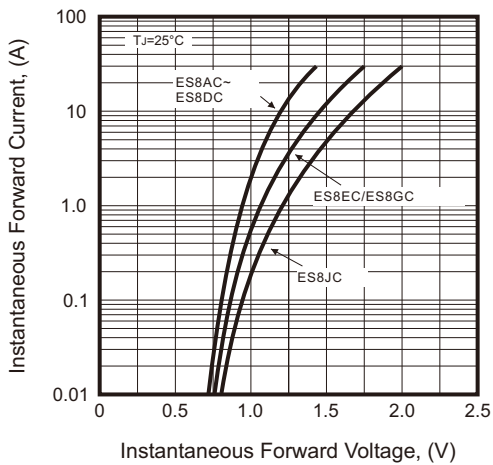


Fig.4 - Typical junction Capacitance

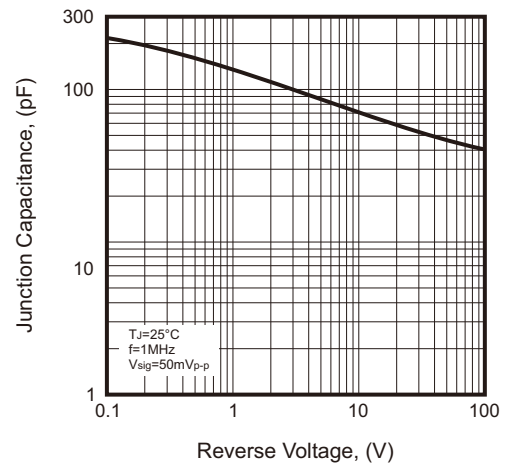


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current

