



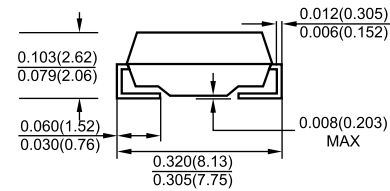
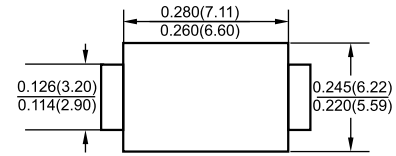
SMC/DO-214AB

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-O 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



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%

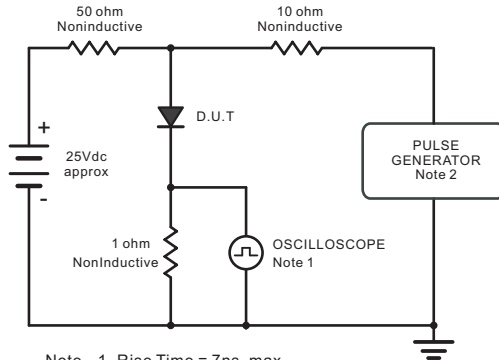
	SYMBOLS	ES8A	ES8B	ES8C	ES8D	ES8E	ES8G	ES8H	ES8J	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	8.0								Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125								Amps
Maximum Instantaneous Forward Voltage at 5.0A	V_F	0.95			1.3		1.7			Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ C$	10								u A
	$T_A = 125^\circ C$	350								
Maximum Reverse Recovery Time ⁽¹⁾	T_{rr}	35								ns
Typical Junction Capacitance at $V_R=4V, f=1MHZ$	C_J	90								pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA} / R_{\theta JC}$	75/20								°C/W
Operating Temperature Range	T_J	-55 to +150								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

Notes:

(1) Measured with $I_F=0.5A, I_R=1A, I_n=0.25A$

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Ries Time = 10ns, max.
Source Impedance = 50 ohms.

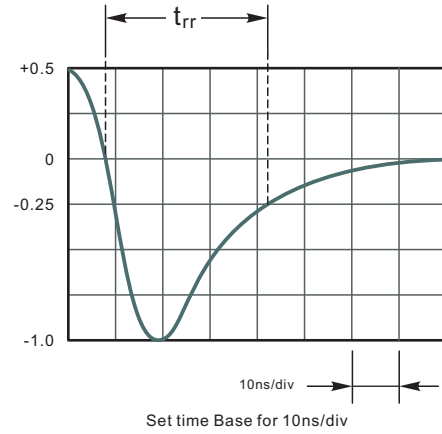


Fig.2 Maximum Average Forward Current Rating

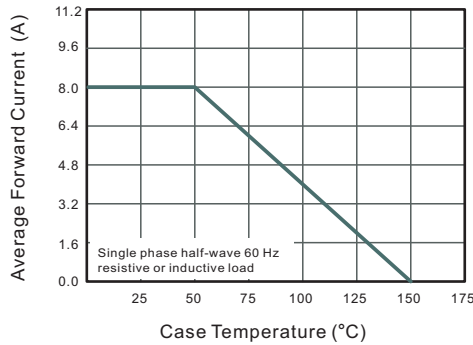


Fig.3 Typical Reverse Characteristics

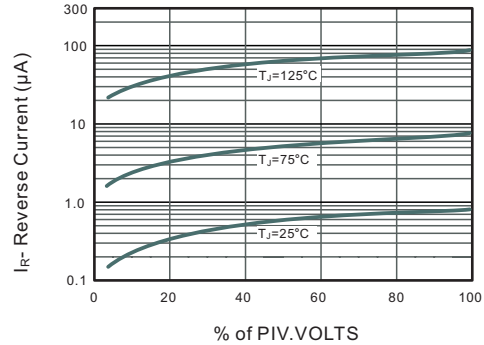


Fig.4 Typical Forward Characteristics

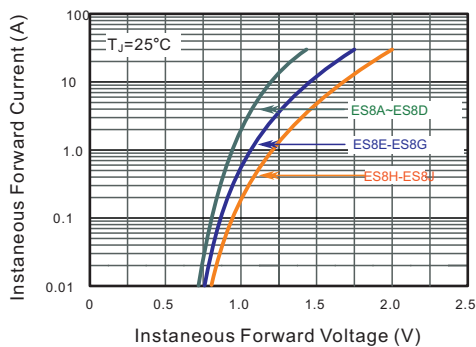


Fig.5 Typical Junction Capacitance

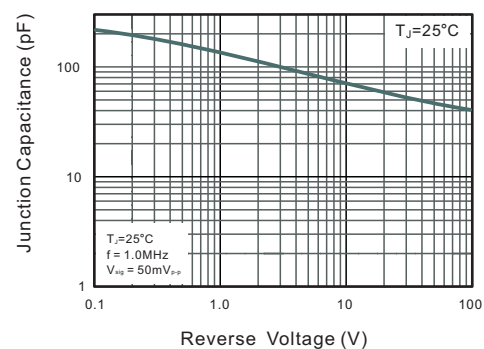


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

