

Pb Free Plating Product

ES5A thru ES5J



5.0 Ampere Surface Mount Type Super Fast Recovery Rectifier Diodes

FEATURE

- ◆ Glass passivated chip junction
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds at terminals

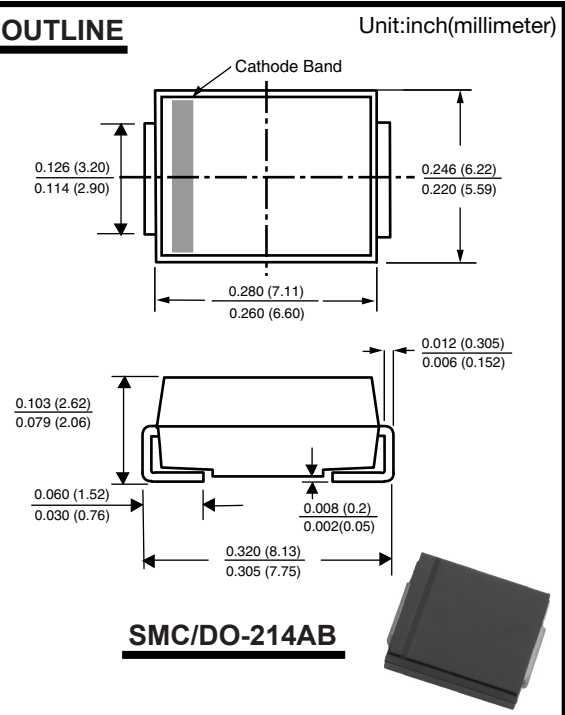
MECHANICAL DATA

Case: SMC/DO-214AB Package
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode band
Mounting Position: Any
Weight: 0.22 gram approximately

APPLICATION

- ◆ LED SMPS/Industrial power supply
- ◆ HID ballast stabilizer
- ◆ Telecommunication SMPS/LED street lamp

OUTLINE



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 current derate by 20%.

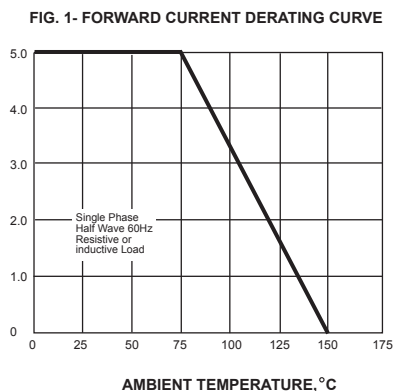
	SYMBOLS	ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	VOLTS
Maximum average forward rectified current at $T_L=75^\circ\text{C}$	$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	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 $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	10.0 300.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	35							ns
Typical junction capacitance (NOTE 2)	C_J	58.0							pF
Typical thermal resistance	$R_{\theta JA}$	47.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$

Note: 1. Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

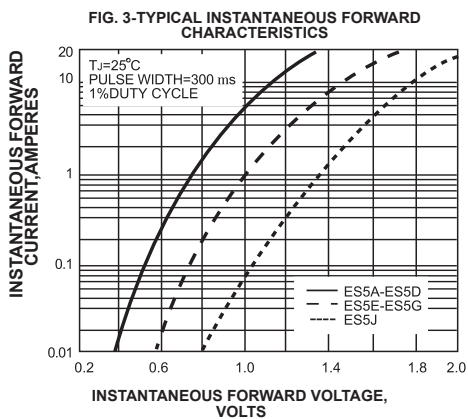
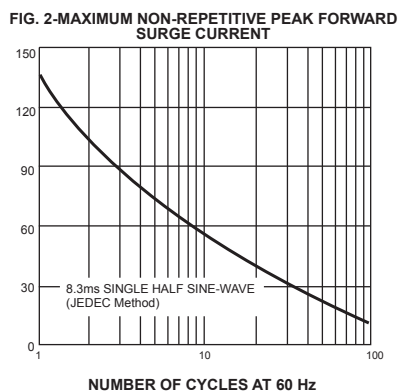
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES ES5A thru ES5J

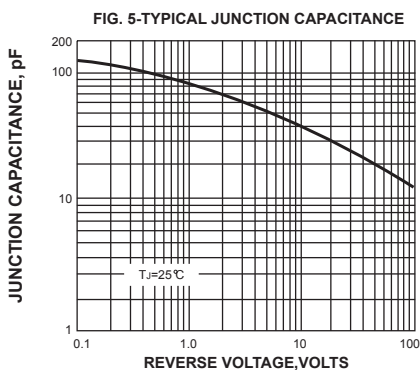
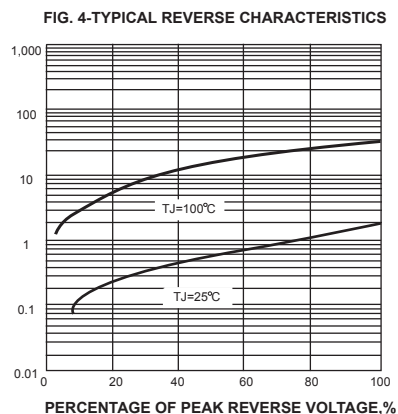
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



PEAK FORWARD SURGE CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES



TRANSIENT THERMAL IMPEDANCE, °C/W

