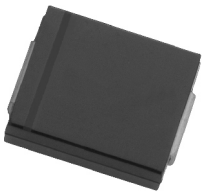
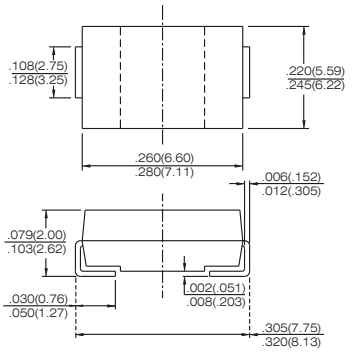
ES3AC thru ES3JC

SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE - 50 TO 600 VOLTS CURRENT - 3.0 AMPERES



SMC/DO-214AB



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- High temperature metallurglc bonded-no compression Contacts as found other dlode-constructed rectifiers
- Glass passivated junction
- Buit-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory
- flammability classification 94V-0
- Complete device submersible temperature of 260°C/10seconds in solder bath
- 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-214AB molded plastic
Terminals：Solder plated, solderable per MIL-STD-750, Method 2026
Polarity：Indicated by cathode band
Standard packaging：16mm tape (EIA-481)
Weight：0.007 ounce, 0.21grams

MAXIMUM RATIXGS 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	ES3AC	ES3BC	ES3CC	ES3DC	ES3EC	ES3GC	ES3JC	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 @ T_L =75°C	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	100							Amps
Maximum Instantaneoue Forward Voltage at 3.0A	V_F	0.95				1.25		1.7	Volts
Maximum DC Reverse Current @T_A=25°C at Rated DC Blocking Voltage @T_A=100°C	I_R	5.0 200							μA
Maximum Reverse Recovery Time (NOTE 1)	T_{RR}	35							nS
Typical Junction Capacitance (NOTE 2)	C_J	45							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	16							°C / W
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +150							°C

NOTES：
1. Rverse Recovery Test Condibons I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1 MHz and applied reverse Voltag of 4.0VDC
3. 8.0mm² (.013mm thick) land areas

SURFACE MOUNT SUPERFAST RECTIFIER

RATING AND CHARACTERISTICS CURVES ES3AC THRU ES3JC

Fig. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM ES1A THRU ES1G

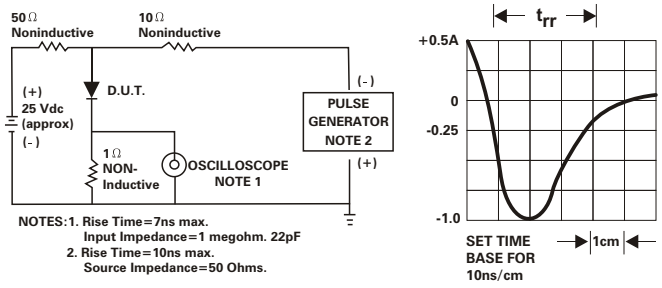


Fig. 2 - MAXIMUM AVERAGE FORWARD CURRENT RATING

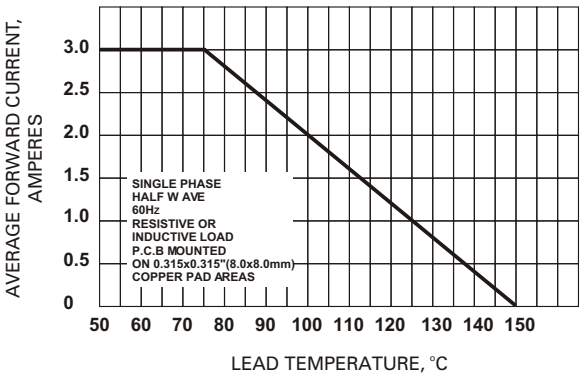


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

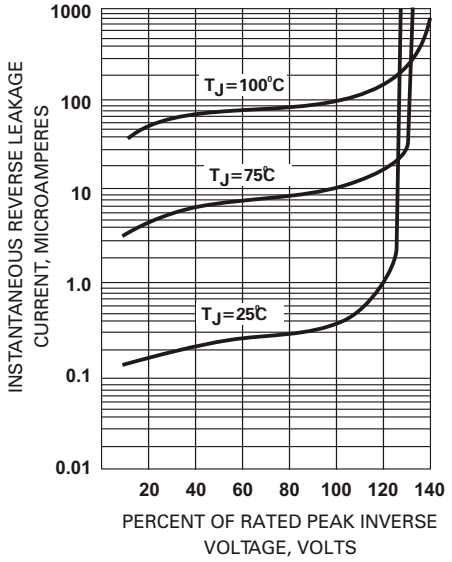


Fig. 4 - TYPICAL FORWARD CHARACTERISTICS

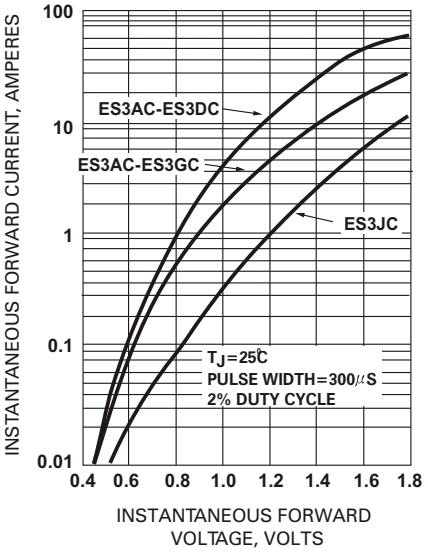


Fig. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

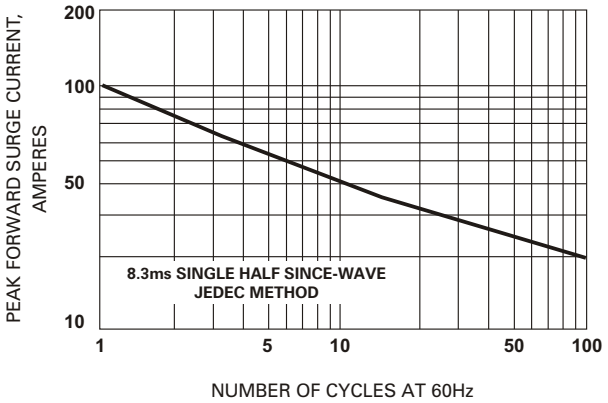


Fig. 6 - TYPICAL JUNCTION CAPACITANCE