

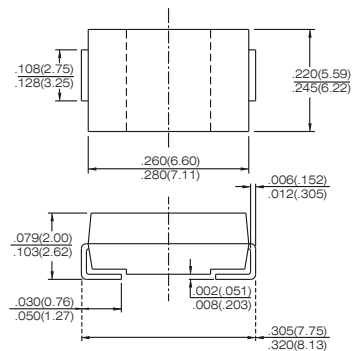
ES3AC thru ES3JC

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 metallurgical bonded-no compression
- Contacts as found other diode-constructed rectifiers
- Glass passivated junction
- Built-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 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	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							μ A
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 θ JA	16							°C / W
Operating and Storage Temperature Range	T _J T _{STG}	-55 to +150							°C

NOTES :

1. Reverse Recovery Test Conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1 MHz and applied reverse Voltage of 4.0VDC
3. 8.0mm² (.013mm thick) land areas

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RATING AND CHARACTERISTICS CURVES ES3AC THRU ES3JC

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

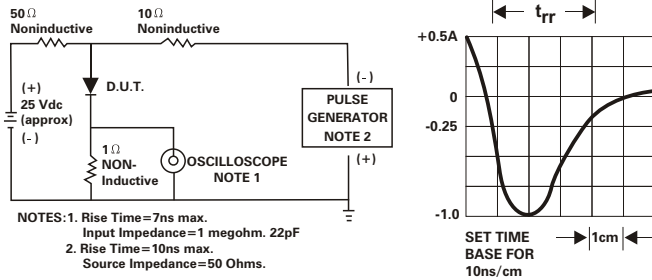


Fig. 2 - MAXIMUM AVERAGE FORWARD CURRENT RATING

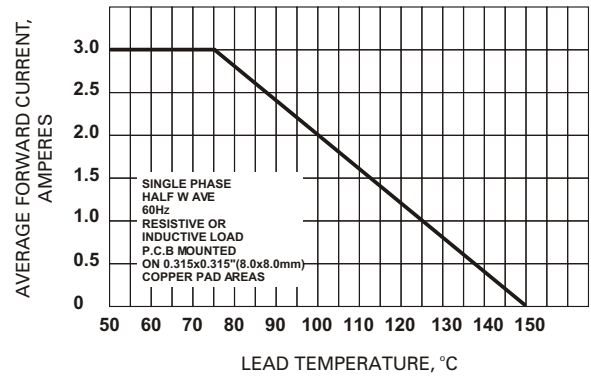


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

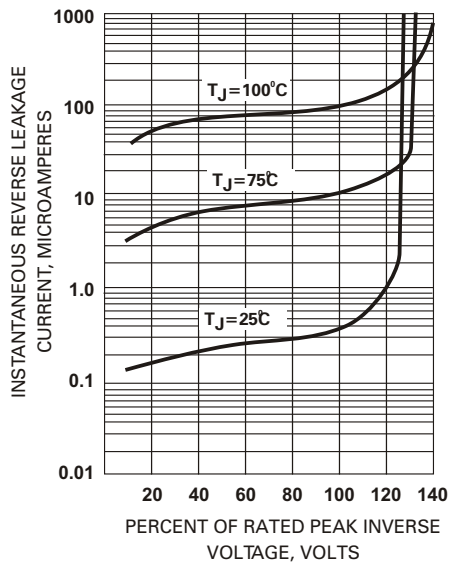


Fig. 4 - TYPICAL FORWARD CHARACTERISTICS

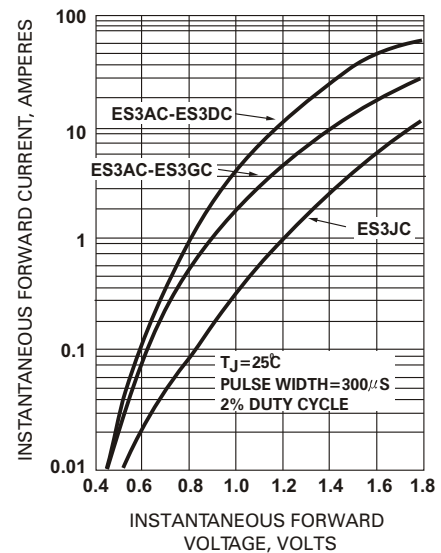


Fig. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

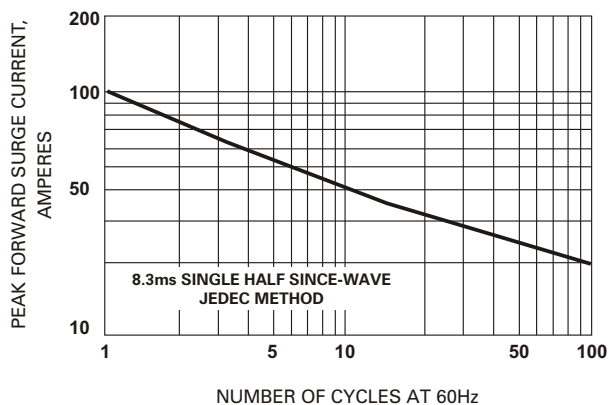


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

