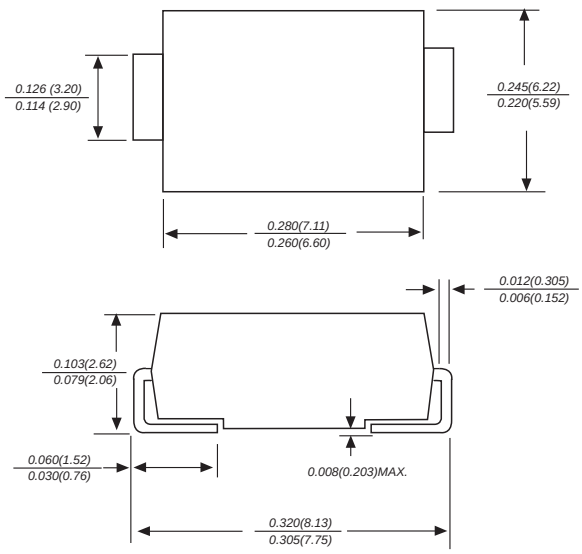
ES3A - ES3J

REVERSE VOLTAGE 50 to 600 Volts
3.0A SURFACE MOUNT SUPER-FAST RECTIFIER

Features

- Glass Passivated Die Construction
- Super-Fast Recovery Time For High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Surge Overload Rating to 100A Peak
- Ideally Suited for Automated Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0

DO-214AB/SMC



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- SMC Weight: 0.21 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

CHARACTERISTICS	SYMBOL	ES3A	ES3B	ES3D	ES3G	ES3J	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current @T_A=55 ℃	$I_{(AV)}$	3.0					A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	125					A
Peak Forward Voltage at 3.0A DC	V_F	0.95			1.25	1.70	V
Maximum DC Reverse Current @T_J=25℃	I_R	5.0					μA
at Rated DC Blocking Voltage @T_J=100℃		100					
Maximum Reverse Recovery Time(Note 1)	T_{RR}	35					nS
Typical Junction Capacitance (Note2)	C_J	70			45		pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	20					℃/W
Operating Temperature Range	T_J	-55 to +150					℃
Storage Temperature Range	T_{STG}	-55 to +150					℃

NOTES: 1.Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient.

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RATING AND CHARACTERTIC CURVES ES3A thru ES3J

FIG. 1 – FORWARD CURRENT DERATING CURVE

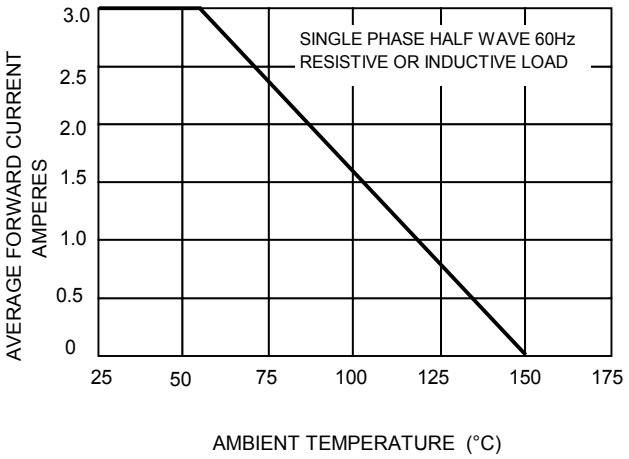


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

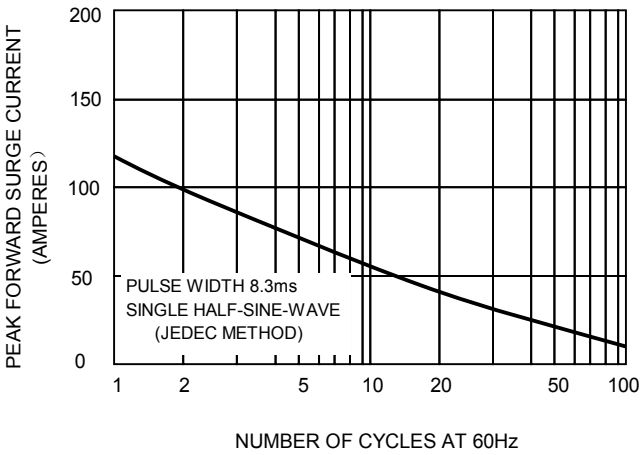


FIG.3 – TYPICAL JUNCTION CAPACITANCE

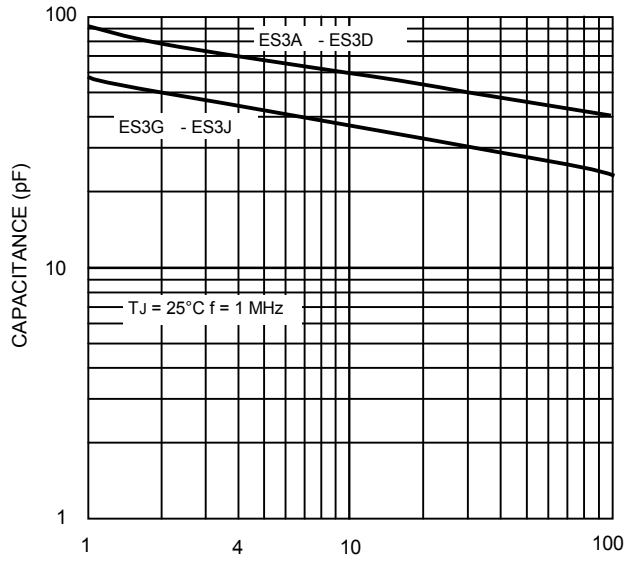
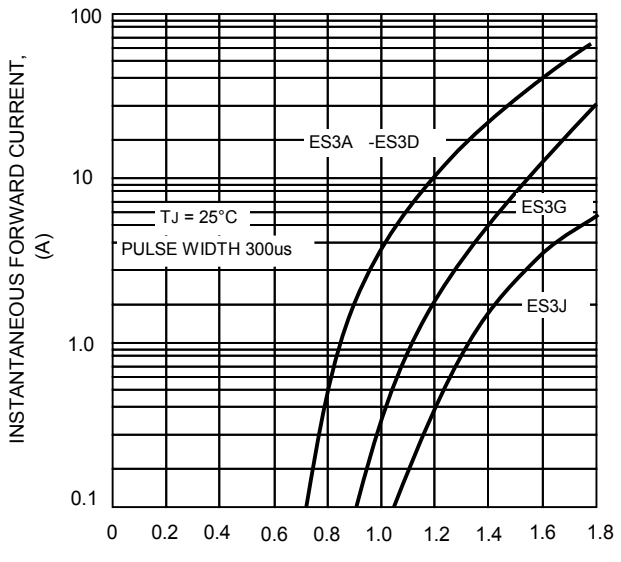


FIG.4-TYPICAL FORWARD CHARACTERISTICS



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