

SURFACE MOUNT SUPER FAST GLASS PASSIVATED RECTIFIERS

REVERSE VOLTAGE - **50 to 600** Volts
FORWARD CURRENT - **3.0** Amperes

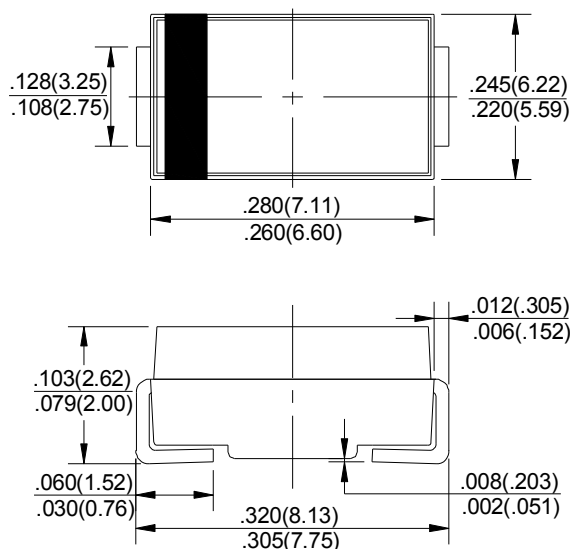
FEATURES

- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case: Molded Plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams
- Mounting position: Any

SMC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature 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	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current @TA=55 °C	I(AV)	3.0					A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	125					A
Peak Forward Voltage at 3.0A DC	VF	0.95			1.25	1.70	V
Maximum DC Reverse Current @TJ=25°C at Rated DC Blocking Voltage @TJ=100°C	IR	5.0 100					μA
Maximum Reverse Recovery Time(Note 1)	TRR	35					nS
Typical Junction Capacitance (Note2)	CJ	70			45		pF
Typical Thermal Resistance (Note3)	RθJA	20					°C/W
Operating Temperature Range	TJ	-55 to +150					°C
Storage Temperature Range	TSTG	-55 to +150					°C

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.



FIG. 1 – FORWARD CURRENT DERATING CURVE

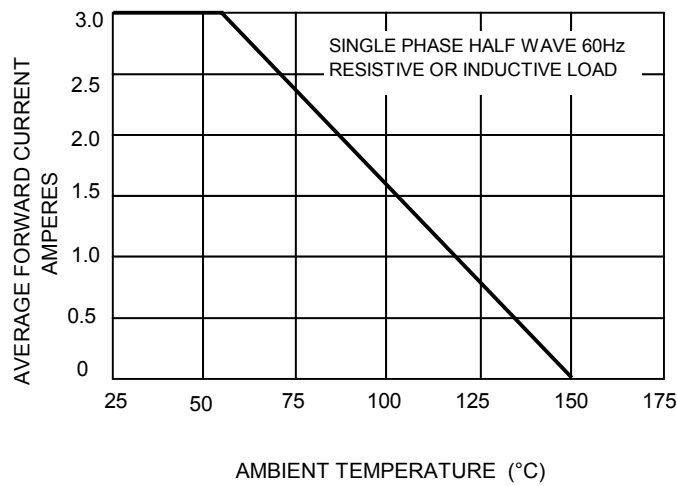


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

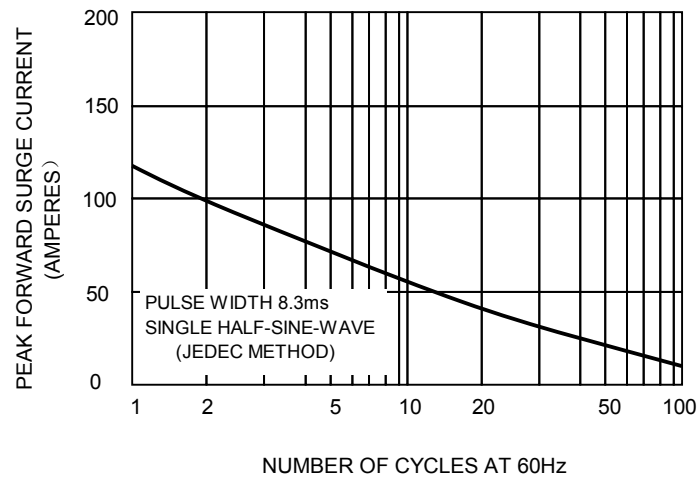


FIG.3 – TYPICAL JUNCTION CAPACITANCE

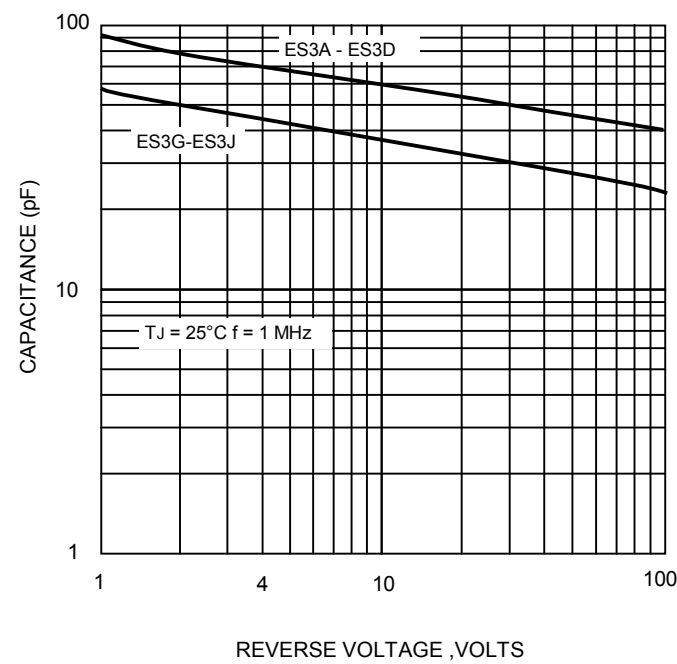


FIG.4-TYPICAL FORWARD CHARACTERISTICS

