## SURFACE MOUNT GLASS SUPERFAST RECOVERY RECTIFERS

REVERSE VOLTAGE - **50** to **600** Volts
FORWARD CURRENT - **1.0** Amperes

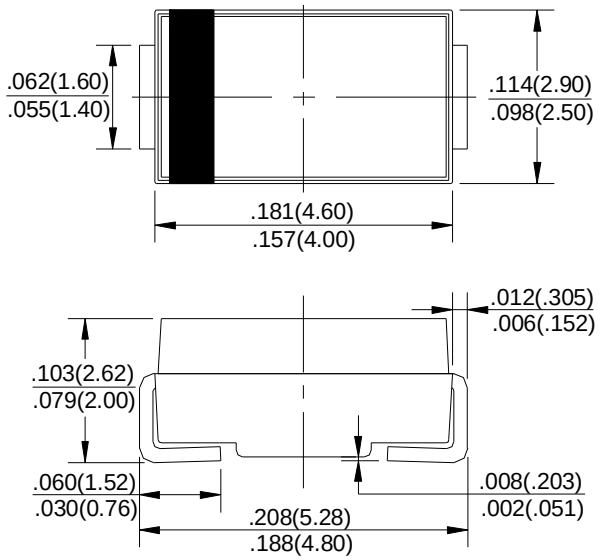
### FEATURES

- 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: Indicated by cathode band
- Weight: 0.002 ounces,0.064 grams
- Mounting position: Any

**SMA**




Dimensions in inches and (millimeters)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave ,60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| CHARACTERISTICS | SYMBOL | ES1A | ES1B | ES1D | ES1G | ES1J | 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 ℃ | $I_{(AV)}$ | 1.0 | | | | | A |
| Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | $I_{FSM}$ | 30 | | | | | A |
| Peak Forward Voltage at 1.0A DC | $V_F$ | 0.95 | | | 1.25 | 1.70 | V |
| Maximum DC Reverse Current @$T_J$=25℃ at Rated DC Blocking Voltage @$T_J$=100℃ | $I_R$ | 5.0<br>100 | | | | | μA |
| Maximum Reverse Recovery Time(Note 1) | $T_{RR}$ | 35 | | | | | nS |
| Tyical Junction Capacitance (Note2) | $C_J$ | 30 | | | 25 | | pF |
| Tyical Thermal Resistance (Note3) | $R_{\theta JA}$ | 40 | | | | | ℃/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 of ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

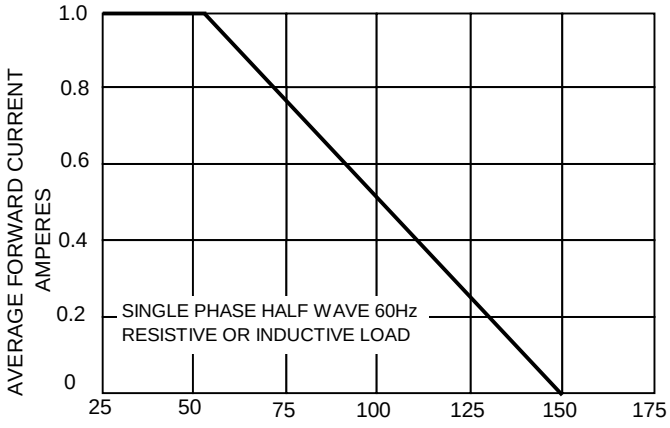



FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

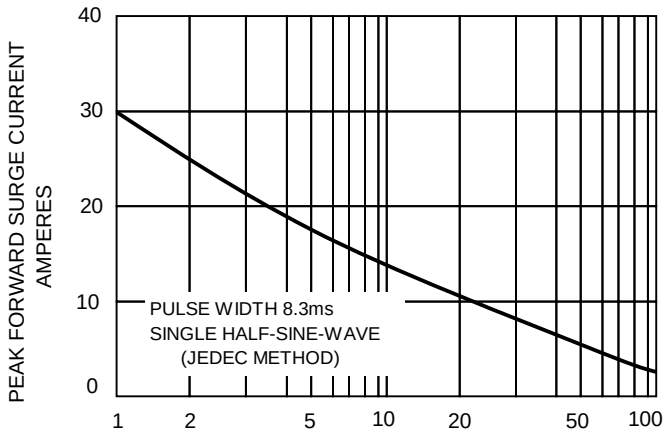



FIG.3 – TYPICAL JUNCTION CAPACITANCE

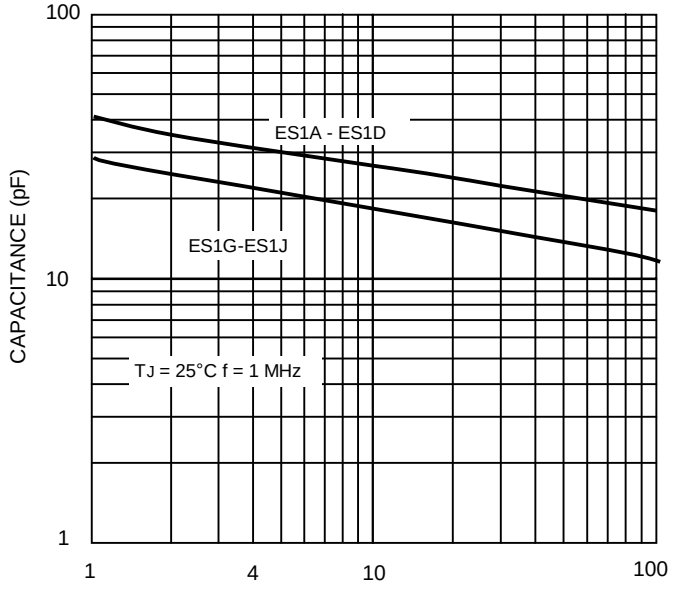



FIG.4-TYPICAL FORWARD CHARACTERISTICS