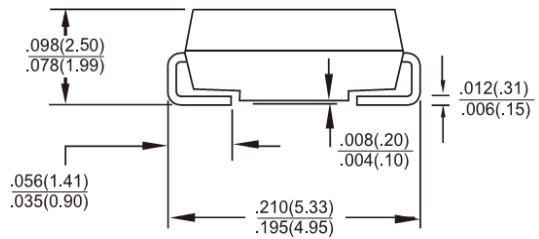
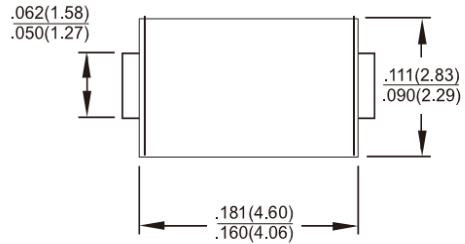


SMA/DO-214AC

Features

- ✧ Glass passivated junction chip
- ✧ For surface mounted application
- ✧ Low profile package
- ✧ Built-in strain relief
- ✧ Ideal for automated placement
- ✧ Easy pick and place
- ✧ Super fast recovery time for high efficiency
- ✧ Glass passivated chip junction
- ✧ High temperature soldering:
260°C/10 seconds at terminals
- ✧ Plastic material used carries Underwriters
Laboratory Classification 94V-0
- ✧ Green compound with suffix "G" on packing
code & prefix "G" on datecode


Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.064 grams

Dimensions in inches and (millimeters)
Marking Diagram


- ES2XA = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | Symbol | ES 2AA | ES 2BA | ES 2CA | ES 2DA | ES 2FA | ES 2GA | ES 2HA | ES 2JA | Units |
|---|------------------------------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 350 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 2 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 50 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage (Note 1) @ 2 A | V_F | 0.95 | | | 1.3 | | 1.7 | | | V |
| Maximum DC Reverse Current @ $T_A=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$ | I_R | | | | | 10 | | | | uA |
| | | | | | | 350 | | | | uA |
| Maximum Reverse Recovery Time (Note 2) | T_{rr} | 35 | | | | | | | | nS |
| Typical Junction Capacitance (Note 3) | C_j | 25 | | | | 20 | | | | pF |
| Maximum Thermal Resistance | $R_{\theta JA}$ $R_{\theta JL}$ | | | | | 75 | | | | $^\circ\text{C/W}$ |
| | | | | | | 20 | | | | |
| Operating Temperature Range | T_J | - 55 to + 150 | | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | - 55 to + 150 | | | | | | | | $^\circ\text{C}$ |

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

 Note 2: Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

 Note 3: Measured at 1 MHz and Applied $V_R=4.0$ Volts

RATINGS AND CHARACTERISTIC CURVES (ES2AA THRU ES2JA)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

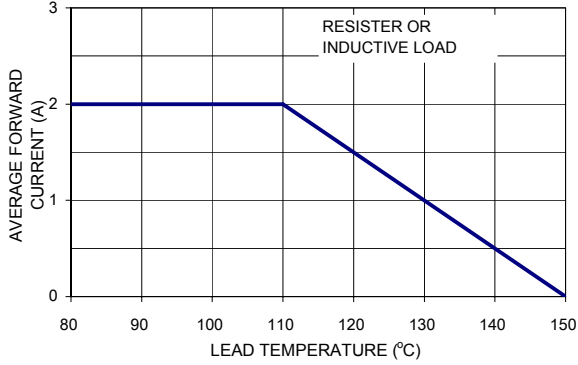


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

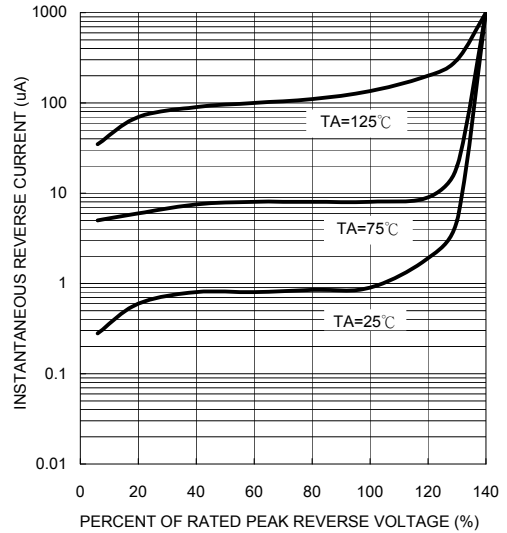


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

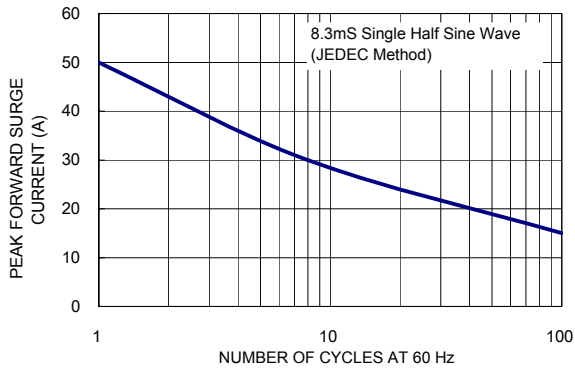


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

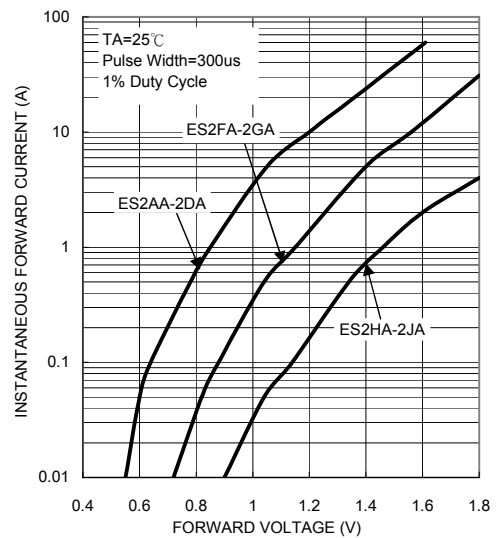


FIG. 4- TYPICAL JUNCTION CAPACITANCE

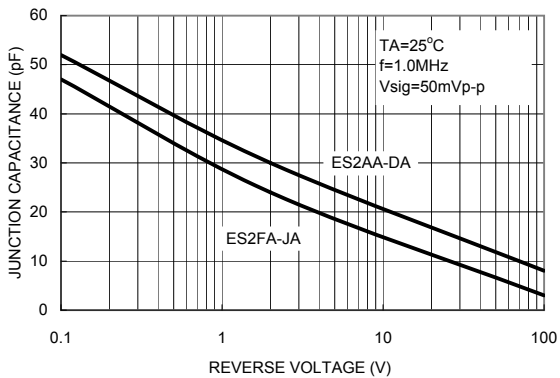


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

