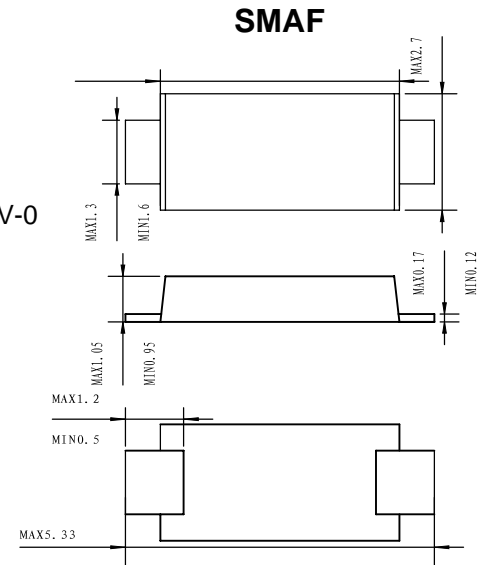


### FEATURES

- ✧ Low profile package
- ✧ For surface mounted applications
- ✧ Built-in strain relief, ideal for automated placement
- ✧ High temperature soldering: 260°C/10 seconds at terminals
- ✧ Plastic package has underwriters, laborator flammability classification 94V-0

### MECHANICAL DATA

- ✧ Case :JEDEC SMAF, molded plastic over passivated chip
- ✧ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: color band denotes cathode end



### Marking Information



**LGE: Lu Guang Electronic XXXX:**  
marking code (RS1AF-RS1MF)

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS1A F	RS1B F	RS1D F	RS1G F	RS1J F	RS1K F	RS1M F	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current $T_L=90^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30							A

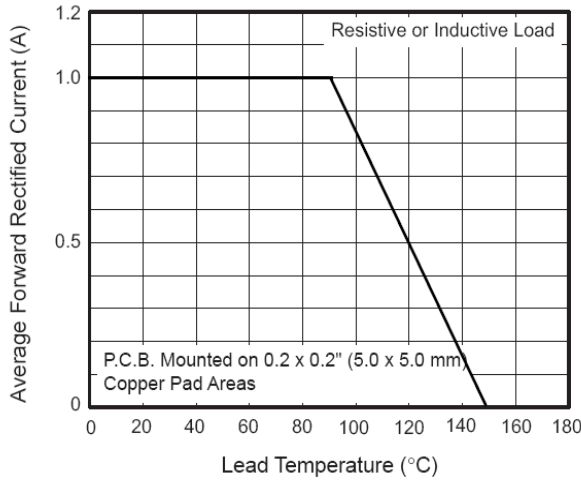
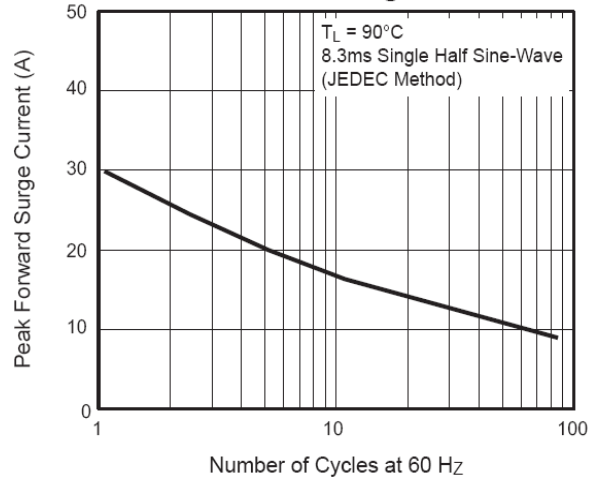
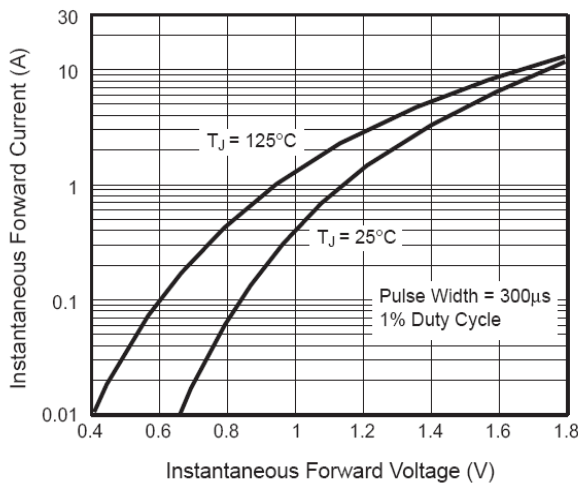
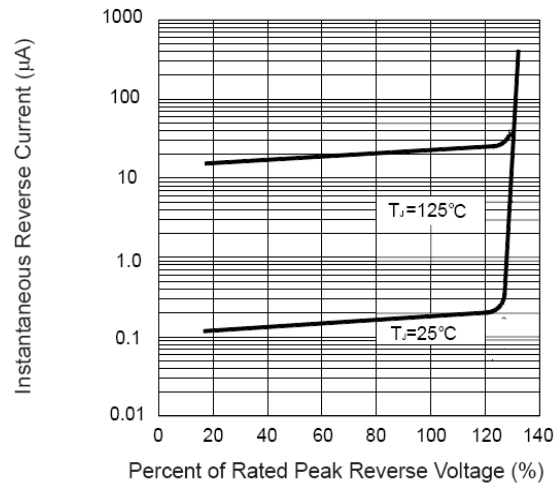
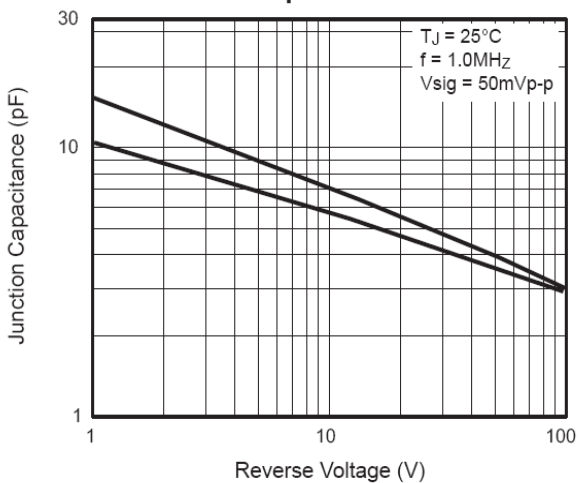
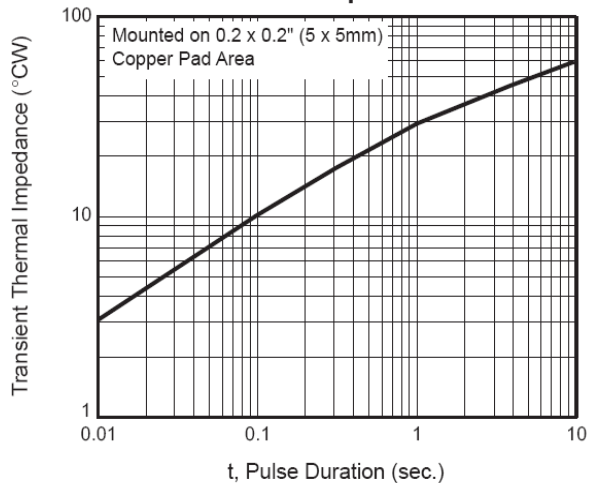
### Thermal Characteristics

Characteristic	Symbol	RS1A F	RS1B F	RS1D F	RS1G F	RS1J F	RS1K F	RS1M F	UNITS
Typical junction capacitance (Note2)	$C_J$	10					7.0		pF
Typical thermal resistance (Note3)	$R_{\theta JL}$	17							°C/W
Operating junction and storage temperature range	$T_J T_{STG}$	- 55 ----- + 150							°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	RS1A F	RS1B F	RS1D F	RS1G F	RS1J F	RS1K F	RS1M F	UNITS
Maximum instantaneous forward voltage at 1.0 A	$V_F$	1.30							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	$I_R$					5.0			$\mu\text{A}$
Typical reverse recovery time (Note1)	$t_{rr}$	150				250	500		ns

- NOTE: 1.Reverse recovery time test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$   
 2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts  
 3. Thermal resistance from junction to lea

**Fig. 1 — Forward Current Derating Curve**

**Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current**

**Fig. 3 — Typical Instantaneous Forward Characteristics**

**Fig. 4 — Typical Reverse Characteristics**

**Fig. 5 — Typical Junction Capacitance**

**Fig. 6 — Typical Transient Thermal Impedance**


PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMAF	3000/REEL	80000	36X30.6X31	12.00	11.00