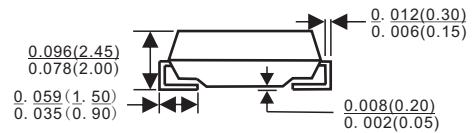
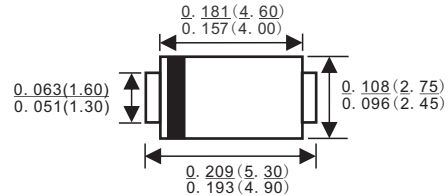




### Features

- ✧ For surface mounted application
- ✧ Easy pick and place
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low power loss, high efficiency
- ✧ High current capability, low VF
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

### SMA/DO-214AC



Dimensions in inches and (millimeters)

### Mechanical Data

- ✧ Case: JEDEC SMA/DO-214AC Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 12mm tape
- ✧ Weight: 0.064 gram

### 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%

| Parameter  | Symbol          | SK 12A      | SK 13A | SK 14A | SK 15A | SK 16A | SK 18A      | SK 110A | SK 115A | SK 120A | Units        |
|--|-----------------|-------------|--------|--------|--------|--------|-------------|---------|---------|---------|--------------|
| <b>Marking code</b>  |                 | SS 12       | SS 13  | SS 14  | SS 15  | SS 16  | SS 18       | SS 110  | SS 115  | SS 120  |              |
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 20          | 30     | 40     | 50     | 60     | 90          | 100     | 150     | 200     | V            |
| Maximum RMS Voltage  | $V_{RMS}$       | 14          | 21     | 28     | 35     | 42     | 56          | 70      | 105     | 150     | V            |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 20          | 30     | 40     | 50     | 60     | 80          | 100     | 150     | 200     | V            |
| Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)                                    | $I_{(AV)}$      | 1.0         |        |        |        |        |             |         |         |         | A            |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$       | 30          |        |        |        |        |             |         |         |         | A            |
| Maximum Instantaneous Forward Voltage (Note 1) $I_F=1.0A @ 25^\circ C$                             | $V_F$           | 0.55        |        |        | 0.70   |        | 0.85        |         |         | V       |              |
| Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$     | $I_R$           | 0.4         |        |        | 0.1    |        |             |         |         | mA      |              |
|  |                 | 10          |        |        | 5.0    |        | 2.0         |         |         | mA      |              |
| Maximum DC Reverse Current at $V_R=33V$ & $T_A=50^\circ C$   | $HT_{IR}$       | -           |        |        | 5.0    |        |             |         |         |         | uA           |
| Typical Junction Capacitance (Note 3)  | $C_j$           | 50          |        |        |        |        |             |         |         |         | pF           |
| Typical Thermal Resistance ( Note 2 )  | $R_{\theta JL}$ | 28          |        |        |        |        |             |         |         |         | $^\circ C/W$ |
|  | $R_{\theta JA}$ | 88          |        |        |        |        |             |         |         |         |              |
| Operating Temperature Range  | $T_J$           | -55 to +150 |        |        |        |        | -55 to +175 |         |         |         | $^\circ C$   |
| Storage Temperature Range  | $T_{STG}$       | -55 to +150 |        |        |        |        | -55 to +175 |         |         |         | $^\circ C$   |

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



LGE

# SK12A-SK120A

1.0AMP. Surface Mount Schottky Barrier Rectifiers



## RATINGS AND CHARACTERISTIC CURVES (SS12 THRU SS120)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

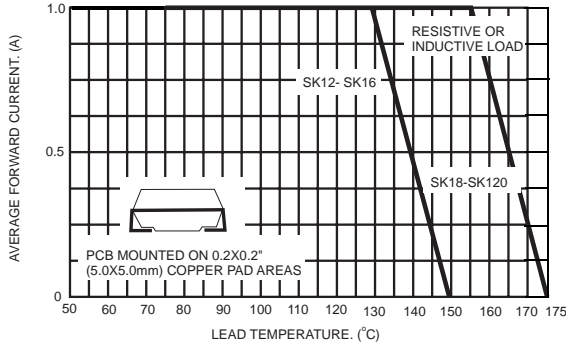


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

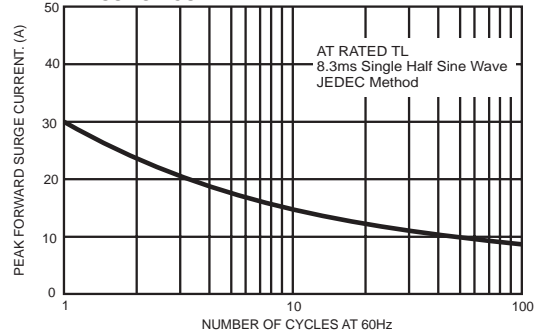


FIG.3- TYPICAL FORWARD CHARACTERISTICS

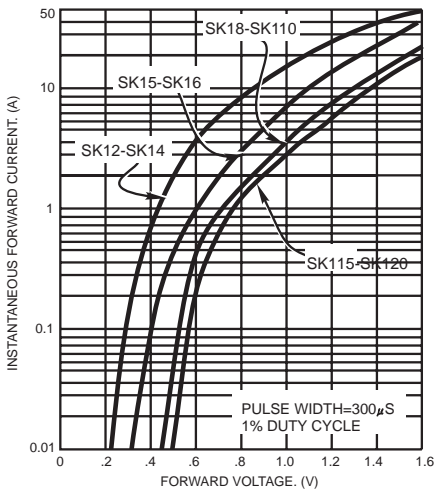


FIG.4- TYPICAL REVERSE CHARACTERISTICS

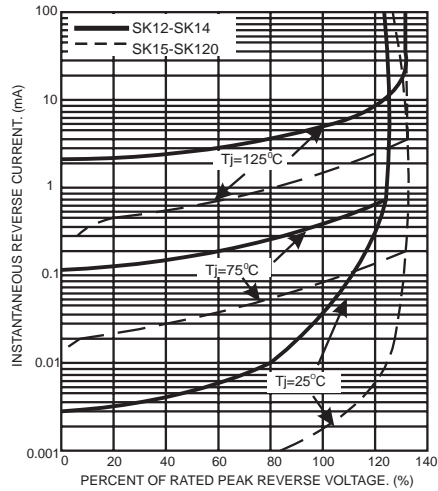


FIG.5- TYPICAL JUNCTION CAPACITANCE

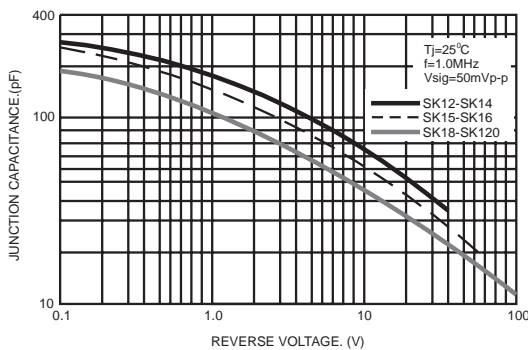
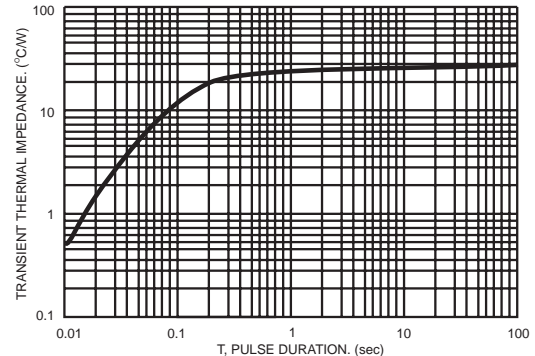


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



| PACKAGE | SPQ/PCS   | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMA     | 5000/REEL | 80000          | 36X30.6X31     | 12.00        | 11.00        |

<http://www.lgesemi.com>