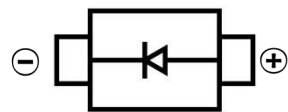


**GENERAL PURPOSE RECTIFIER DIODE**
**FEATURES**

- Glass passivated junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Surface Mount device


**SMC**

**MECHANICAL DATA**

- Case: SMC(DO-214AB)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.21 grams (approximate)

**MAXIMUM RATINGS AND CHARACTERISTICS(T<sub>A</sub> = 25°C unless otherwise noted)**

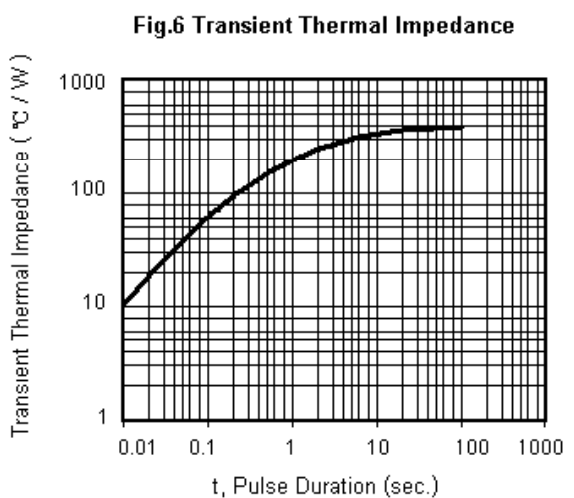
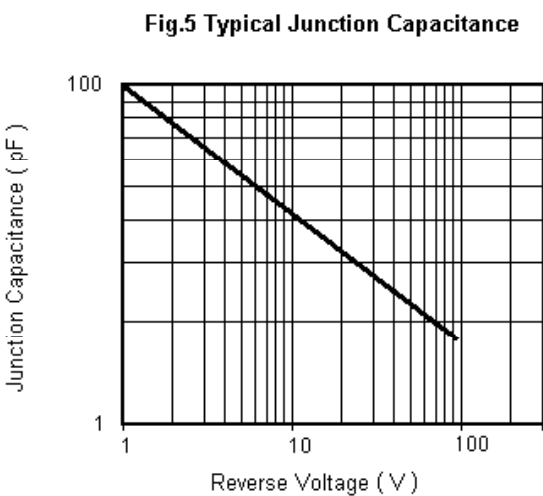
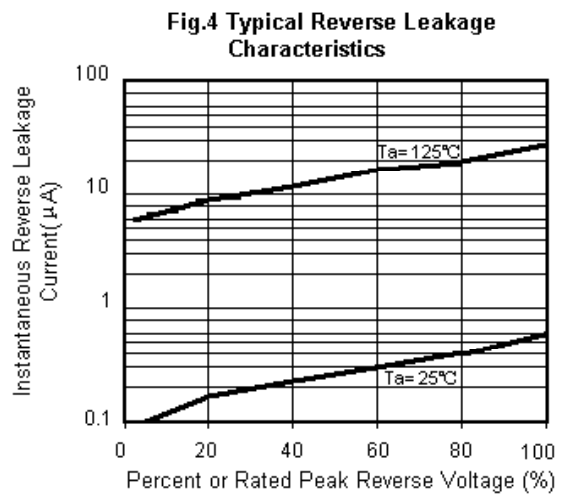
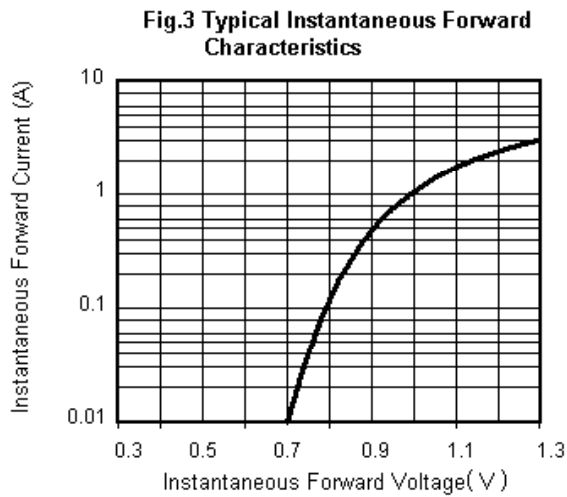
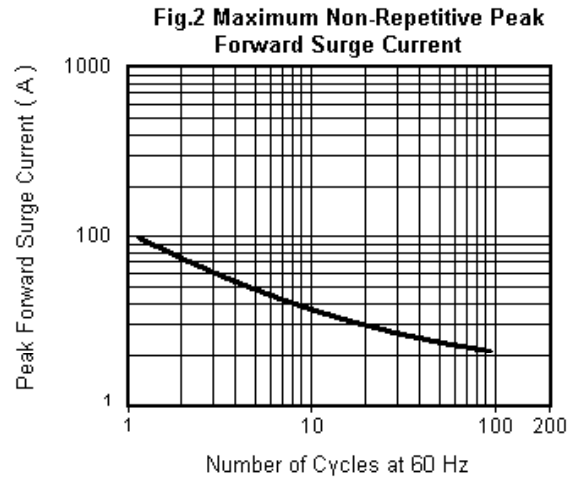
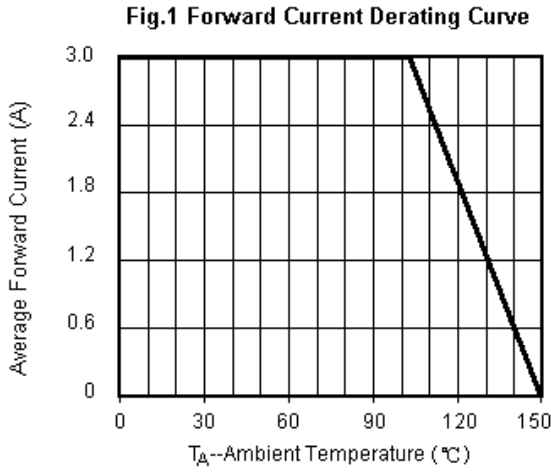
| Parameter  | Symbol              | Value     | Unit |
|--|---------------------|-----------|------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>    | 50        | V    |
| DC Blocking Reverse Voltage  | V <sub>R</sub>      | 50        | V    |
| RMS Reverse Voltage  | V <sub>R(RMS)</sub> | 35        | V    |
| Maximum Average Forward Rectified Current  | I <sub>F</sub>      | 3         | A    |
| Non-Repetitive Peak Forward Surge Current @t@=8.3ms  | I <sub>FSM</sub>    | 100       | A    |
| Thermal Resistance From Junction To Ambient  | R <sub>θJA</sub>    | 50        | °C/W |
| Reverse Recovery Time(@I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A) | t <sub>rr</sub>     | 2.5       | uS   |
| Junction Temperature   | T <sub>J</sub>      | 125       | °C   |
| Storage Temperature  | T <sub>STG</sub>    | -55 ~+150 | °C   |

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

| Parameter         | Symbol         | Min | Typ | Max | Unit | Conditions                 |
|-------------------|----------------|-----|-----|-----|------|----------------------------|
| Forward voltage   | V <sub>F</sub> |     | 1.0 | 1.1 | V    | I <sub>F</sub> =3A         |
| Reverse current   | I <sub>R</sub> |     |     | 5   | uA   | V <sub>R</sub> =50V        |
| Diode capacitance | C <sub>D</sub> |     | 60  |     | pF   | V <sub>R</sub> =4V, f=1MHz |

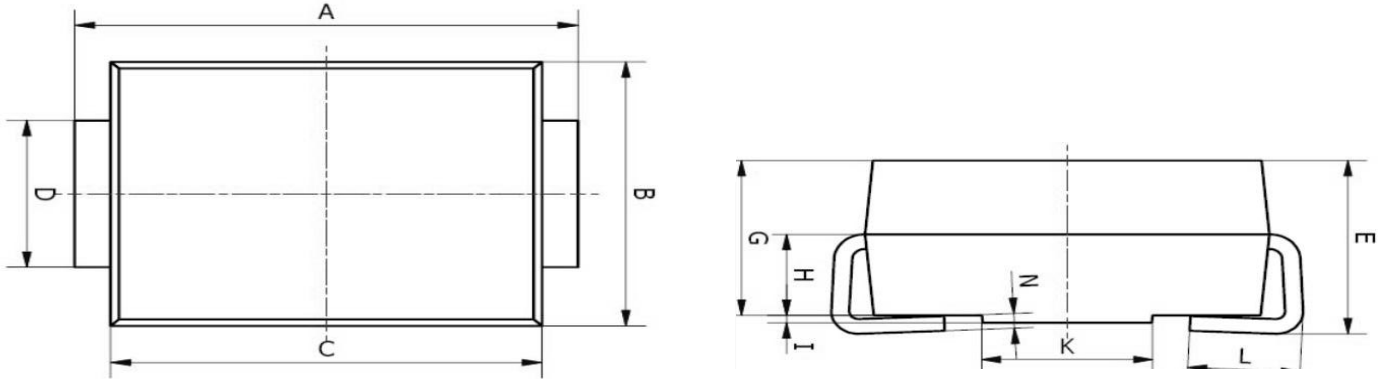
GENERAL PURPOSE RECTIFIER DIODE

**Typical Characteristics**



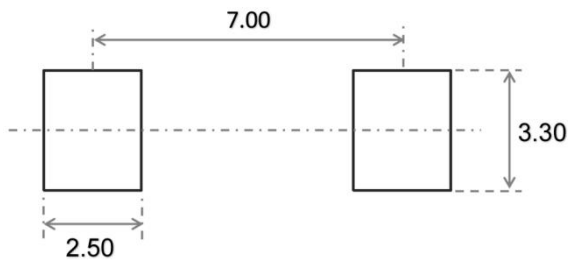
GENERAL PURPOSE RECTIFIER DIODE

SMC Package Outline Dimensions



| Symbol | Dimensions In Millimeters |      | Dimensions In Inches |       |
|--------|---------------------------|------|----------------------|-------|
|        | Min.                      | Max. | Min.                 | Max.  |
| A      | 7.75                      | 8.13 | 0.305                | 0.320 |
| B      | 5.59                      | 6.22 | 0.220                | 0.245 |
| C      | 6.60                      | 7.11 | 0.260                | 0.280 |
| D      | 2.75                      | 3.25 | 0.108                | 0.128 |
| E      | 2.25                      | 2.82 | 0.089                | 0.111 |
| G      | 2.00                      | 2.62 | 0.079                | 0.103 |
| H      | 1.26                      | 1.56 | 0.050                | 0.061 |
| I      | 0.05                      | 0.15 | 0.002                | 0.006 |
| K      | 4.30                      | 6.00 | 0.169                | 0.236 |
| L      | 1.25                      | 1.75 | 0.049                | 0.069 |
| N      | 0.10                      | 0.30 | 0.004                | 0.012 |

SMC Suggested Pad Layout



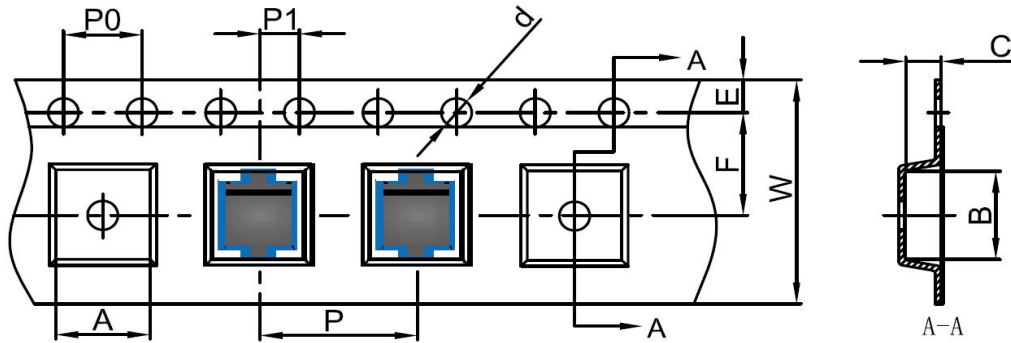
Note:

1. Controlling dimension: in millimeters
2. General tolerance:  $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

GENERAL PURPOSE RECTIFIER DIODE

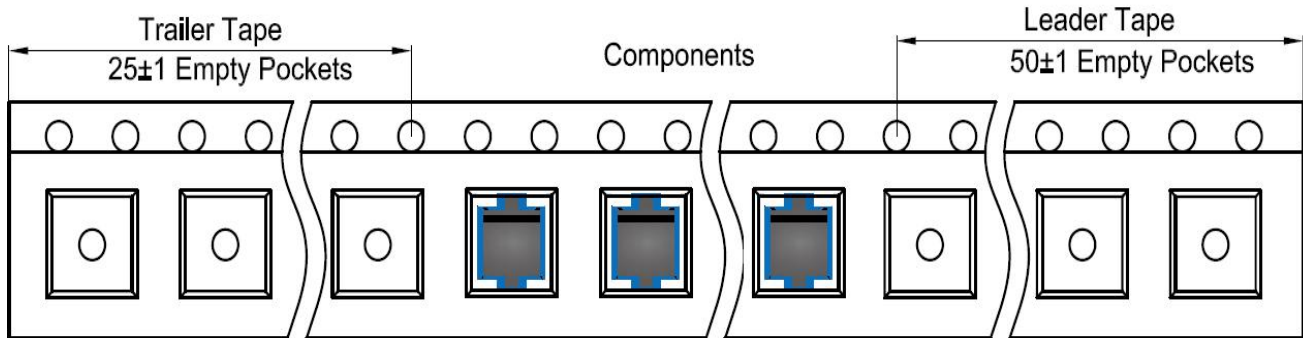
SMC Tape and Reel

SMC Embossed Carrier Tape

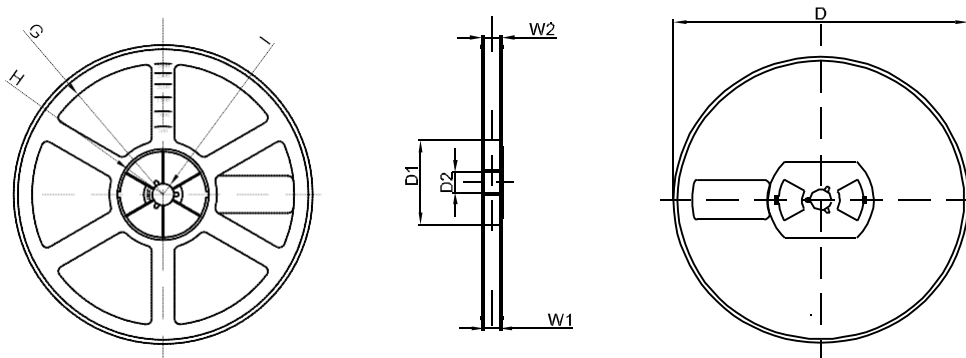


| DIMENSIONS ARE IN MILLIMETER |      |      |      |       |      |      |      |      |      |       |
|------------------------------|------|------|------|-------|------|------|------|------|------|-------|
| TYPE                         | A    | B    | C    | d     | E    | F    | P0   | P    | P1   | W     |
| SMC                          | 6.3  | 8.25 | 2.90 | Ø1.55 | 1.75 | 7.50 | 4.00 | 8.00 | 2.00 | 16.00 |
| TOLERANCE                    | ±0.1 | ±0.1 | ±0.1 | ±0.1  | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1  |

SMC Tape Leader and Trailer



SMC Reel



| DIMENSIONS ARE IN MILLIMETER |      |     |    |      |     |       |      |       |
|------------------------------|------|-----|----|------|-----|-------|------|-------|
| REEL OPTION                  | D    | D1  | D2 | G    | H   | I     | W1   | W2    |
| 13" DIA                      | Ø330 | 100 | 21 | R165 | R50 | R6.50 | 16.4 | 21.00 |
| TOLERANCE                    | ±2   | ±1  | ±1 | ±1   | ±1  | ±1    | ±1   | ±1    |