

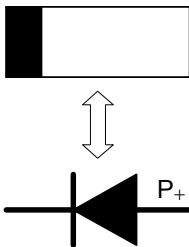
## SMD Switching Diode

### ■ Features

$$I_o = 100\text{mA}$$

$$V_R = 80\text{V}$$

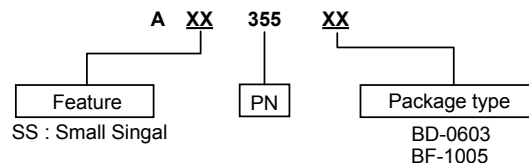
- Designed for mounting on small surface.
- High speed switching.
- High mounting capability, strong surge withstand, high reliability.
- Extremely thin package.
- Lead-free device



### ■ Mechanical Data

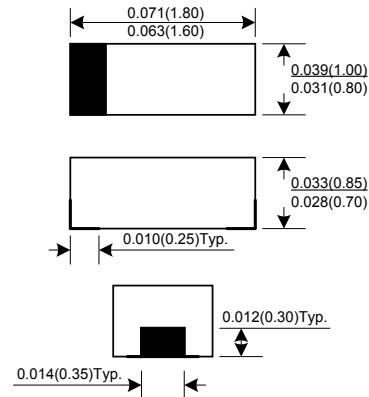
- Case : 0603(1608) 1005(2512) standard package, molded plastic.
- Terminals : Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity : Indicated by cathode band.
- Mounting position : Any.
- Weight : BD:0.003gram (approximately)  
BF:0.006gram (approximately)

### ■ Ordering information



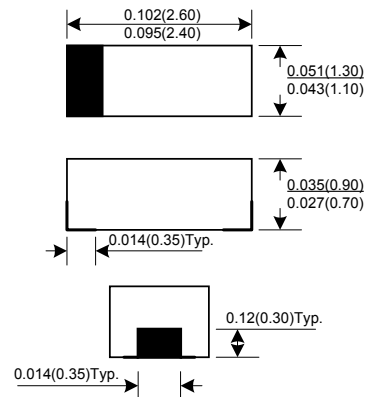
### ■ General Description

0603(1608)



Dimensions in inches and (millimeter)

1005(2512)



Dimensions in inches and (millimeter)



■ **Maximum Rating** (at  $T_A=25^\circ\text{C}$  unless otherwise noted)

| Symbol    | Parameter                       | Conditions | Min  | Typ  | Max  | Unit             |
|-----------|---------------------------------|------------|--|------|------|------------------|
| $V_{RRM}$ | Repetitive peak reverse voltage |            | -  | -    | 90   | V                |
| $V_R$     | Reverse voltage                 |            | -  | -    | 80   | V                |
| $I_O$     | Average forward current         |            | -  | -    | 100  | mA               |
| $I_{FSM}$ | Forward current, surge peak     | 0603       | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | 1000 | -    | mA               |
|           |                                 | 1005       |  | 1000 | -    |                  |
| $P_D$     | Power Dissipation               | 0603       | -  | -    | 150  | mW               |
|           |                                 | 1005       | -  | -    | 300  |                  |
| $I_{FRM}$ | Repetitive peak forward current |            | -  | -    | 225  | mA               |
| $T_{STG}$ | Storage temperature             |            | -40  | -    | +125 | $^\circ\text{C}$ |
| $T_j$     | Junction temperature            |            | -40  | -    | +125 | $^\circ\text{C}$ |

■ **Electrical Characteristics** (at  $T_A=25^\circ\text{C}$  unless otherwise noted)

| Symbol   | Parameter                     | Conditions  | Min. | Typ. | Max. | Unit          |
|----------|-------------------------------|---|------|------|------|---------------|
| $V_F$    | Forward voltage               | $I_F=100\text{mA DC}$                                     | -    | -    | 1.0  | V             |
| $I_R$    | Reverse current               | $V_R=80\text{V}$  | -    | -    | 0.1  | $\mu\text{A}$ |
| $C_T$    | Capacitance between terminals | $F=1\text{MHz}$ , and 0.5 VDC reverse voltage             | -    | 3    | -    | pF            |
| $T_{rr}$ | Reverse recovery time         | $V_R=6\text{V}$ , $I_F=10\text{mA}$ , $R_L=50\text{ohms}$ | -    | 4    | -    | nS            |

Rating And Characteristic Curves

Fig. 1 - Forward characteristics

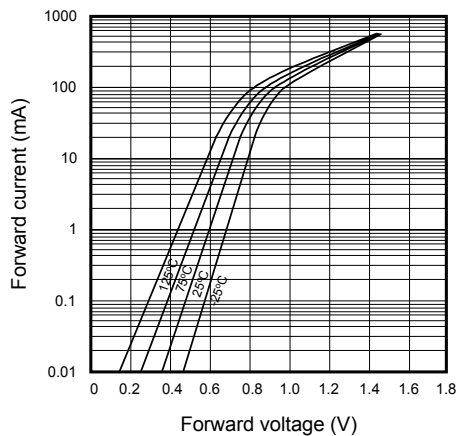


Fig. 2 - Reverse characteristics

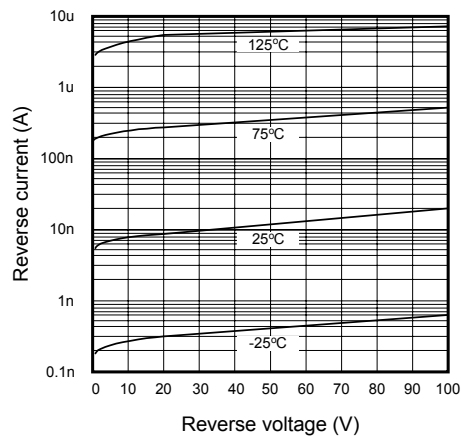


Fig. 3 - Capacitance between terminals characteristics

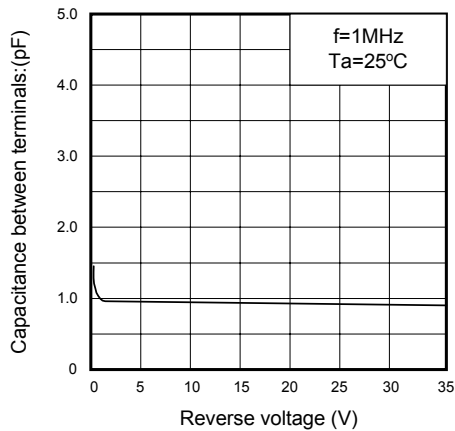
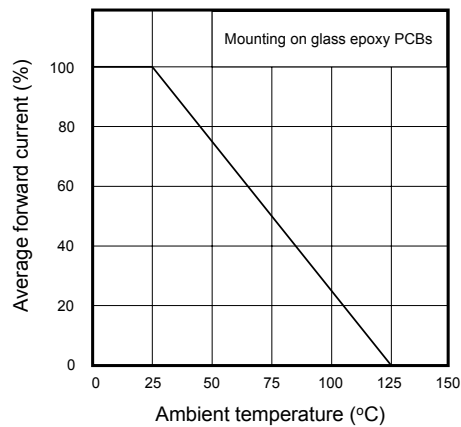


Fig. 4 - Current derating curve



Marking Information

