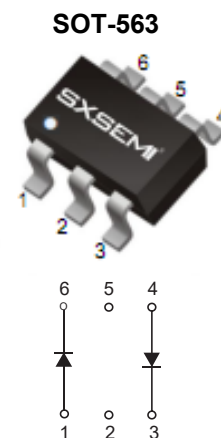


### FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



Marking: KAM

### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

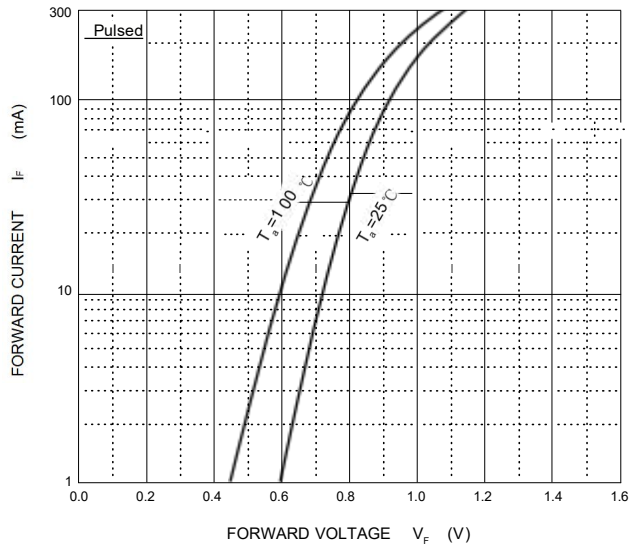
| Parameter                                          | Symbol          | Limit    | Unit |
|----------------------------------------------------|-----------------|----------|------|
| Non-Repetitive Peak Reverse Voltage                | $V_{RM}$        | 100      | V    |
| Peak Repetitive Peak Reverse Voltage               | $V_{RRM}$       | 75       | V    |
| Working Peak Reverse Voltage                       | $V_{RWM}$       |          |      |
| DC Blocking Voltage                                | $V_R$           |          |      |
| RMS Reverse Voltage                                | $V_{R(RMS)}$    | 53       | V    |
| Forward Continuous Current                         | $I_{FM}$        | 300      | mA   |
| Average Rectified Output Current                   | $I_o$           | 200      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | $I_{FSM}$       | 2.0      | A    |
| Power Dissipation                                  | $P_d$           | 150      | mW   |
| Thermal Resistance Junction to Ambient             | $R_{\theta JA}$ | 833      | °C/W |
| Operation Junction and Storage Temperature Range   | $T_J, T_{STG}$  | -55~+150 | °C   |

### Electrical Ratings @Ta=25°C

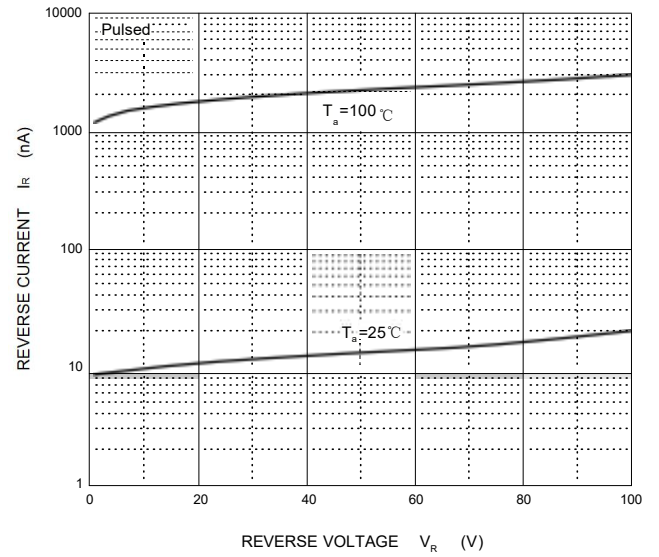
| Parameter                     | Symbol     | Min | Typ | Max   | Unit    | Conditions                                       |
|-------------------------------|------------|-----|-----|-------|---------|--------------------------------------------------|
| Reverse breakdown voltage     | $V_{(BR)}$ | 75  |     |       | V       | $I_R=100\mu A$                                   |
| Forward voltage               | $V_{F1}$   |     |     | 0.715 | V       | $I_F=1mA$                                        |
|                               | $V_{F2}$   |     |     | 0.855 | V       | $I_F=10mA$                                       |
|                               | $V_{F3}$   |     |     | 1.0   | V       | $I_F=50mA$                                       |
|                               | $V_{F4}$   |     |     | 1.25  | V       | $I_F=150mA$                                      |
| Reverse current               | $I_{R1}$   |     |     | 1     | $\mu A$ | $V_R=75V$                                        |
|                               | $I_{R2}$   |     |     | 25    | nA      | $V_R=20V$                                        |
| Capacitance between terminals | $C_T$      |     |     | 2     | pF      | $V_R=0V, f=1MHz$                                 |
| Reverse recovery time         | $t_{rr}$   |     |     | 4     | ns      | $I_F=I_R=10mA$<br>$I_{rr}=0.1I_R, R_L=100\Omega$ |

## Typical Characteristics

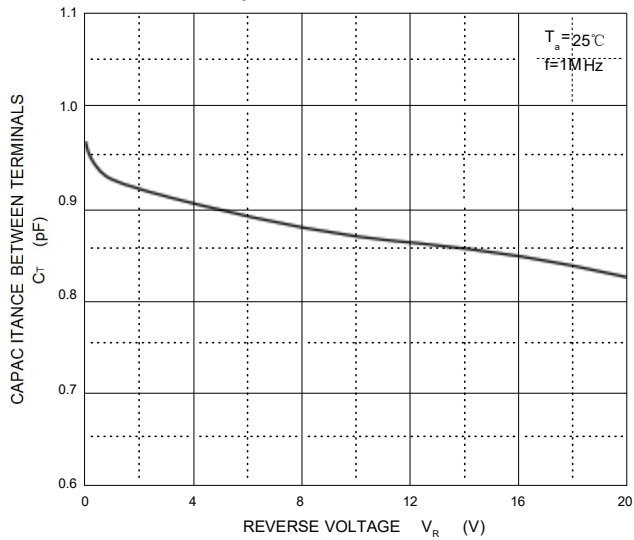
**Forward Characteristics**



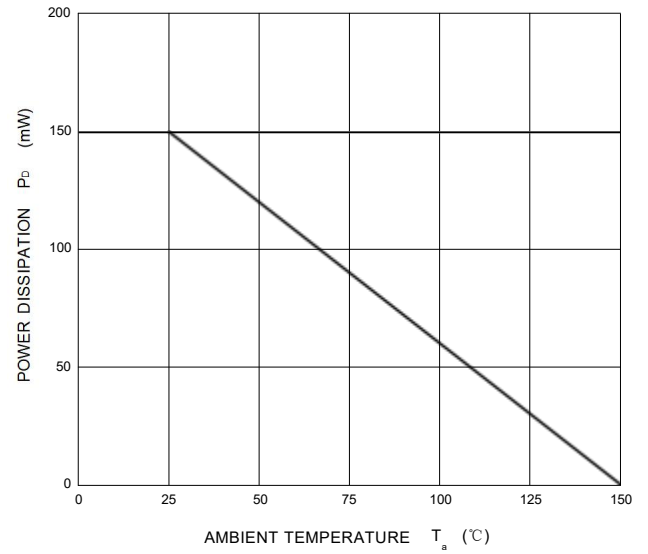
**Reverse Characteristics**



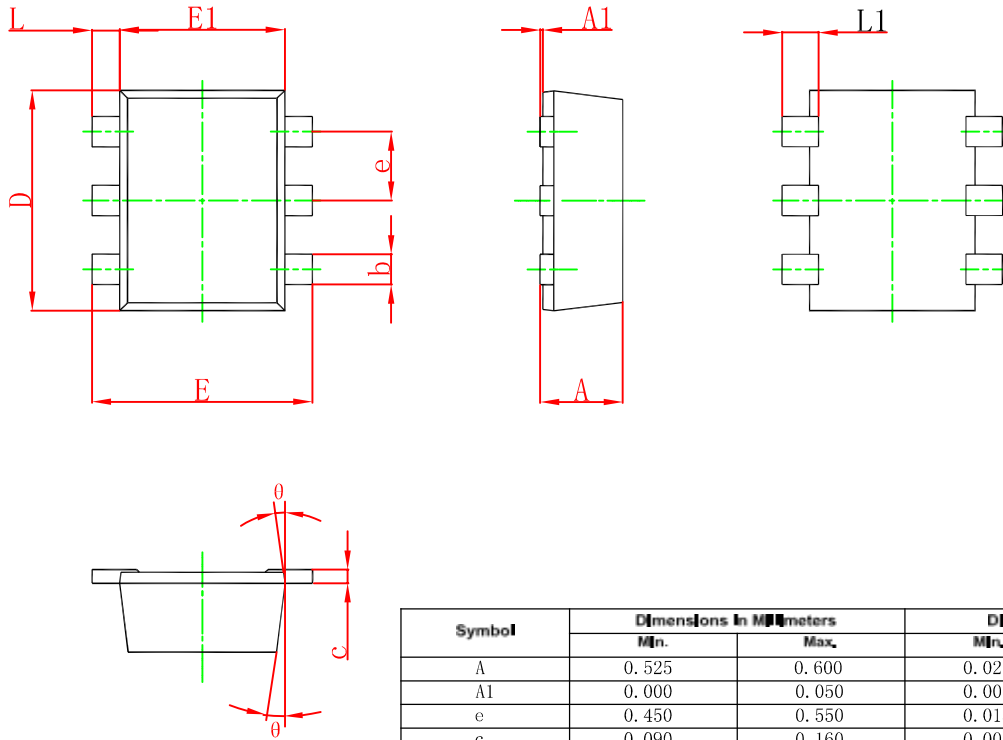
**Capacitance Characteristics**



**Power Derating Curve**

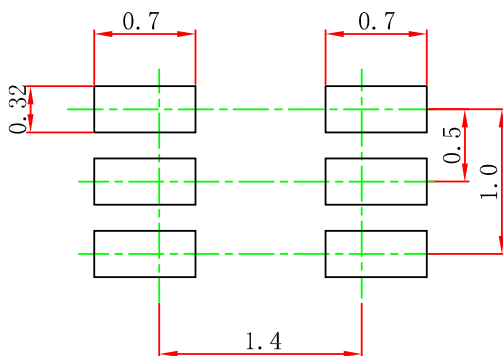


## SOT-563 Package Outline Dimensions



| Symbol | Dimensions in Millimeters |       | Dimensions in Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min.                      | Max.  | Min.                 | Max.  |
| A      | 0.525                     | 0.600 | 0.021                | 0.024 |
| A1     | 0.000                     | 0.050 | 0.000                | 0.002 |
| e      | 0.450                     | 0.550 | 0.018                | 0.022 |
| c      | 0.090                     | 0.160 | 0.004                | 0.006 |
| D      | 1.500                     | 1.700 | 0.059                | 0.067 |
| b      | 0.170                     | 0.270 | 0.007                | 0.011 |
| E1     | 1.100                     | 1.300 | 0.043                | 0.051 |
| E      | 1.500                     | 1.700 | 0.059                | 0.067 |
| L      | 0.100                     | 0.300 | 0.004                | 0.012 |
| L1     | 0.200                     | 0.400 | 0.008                | 0.016 |
| θ      | 10° REF.                  |       | 10° REF.             |       |

## SOT-563 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.