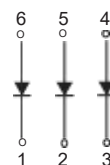
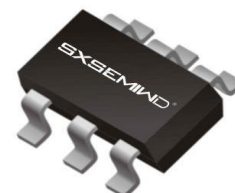


### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Leakage Current



SOT-363



MARKING: KLL

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

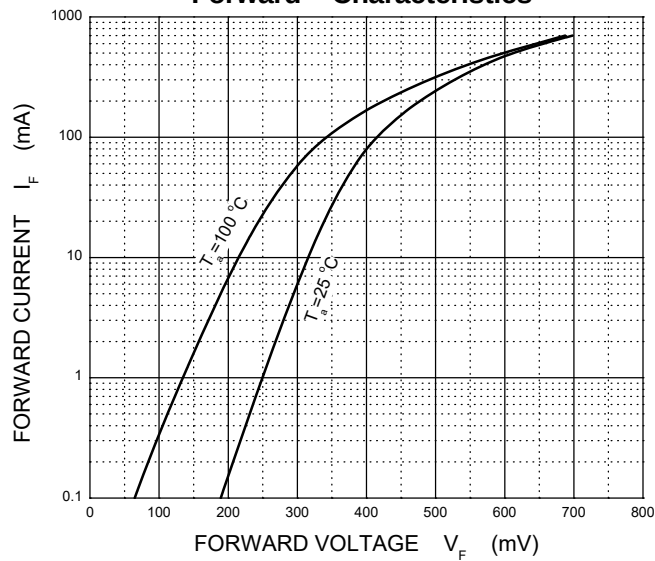
| Parameter                                         | Symbol          | Limit      | Unit |
|---------------------------------------------------|-----------------|------------|------|
| Peak Repetitive Peak Reverse Voltage              | $V_{RRM}$       | 40         | V    |
| Working Peak Reverse Voltage                      | $V_{RWM}$       |            |      |
| DC Blocking Voltage                               | $V_R$           |            |      |
| RMS Reverse Voltage                               | $V_{R(RMS)}$    | 28         | V    |
| Forward Continuous Current                        | $I_{FM}$        | 350        | mA   |
| Average Rectified Current                         | $I_O$           | 175        | mA   |
| Non-repetitive Peak Forward Surge Current@t=8.3ms | $I_{FSM}$       | 2          | A    |
| Power Dissipation                                 | $P_d$           | 200        | mW   |
| Thermal Resistance Junction to Ambient            | $R_{\theta JA}$ | 500        | °C/W |
| Operating Junction Temperature Range              | $T_J$           | -40 ~ +125 | °C   |
| Storage Temperature Range                         | $T_{STG}$       | -55 ~ +150 | °C   |

### Electrical Ratings @Ta=25°C

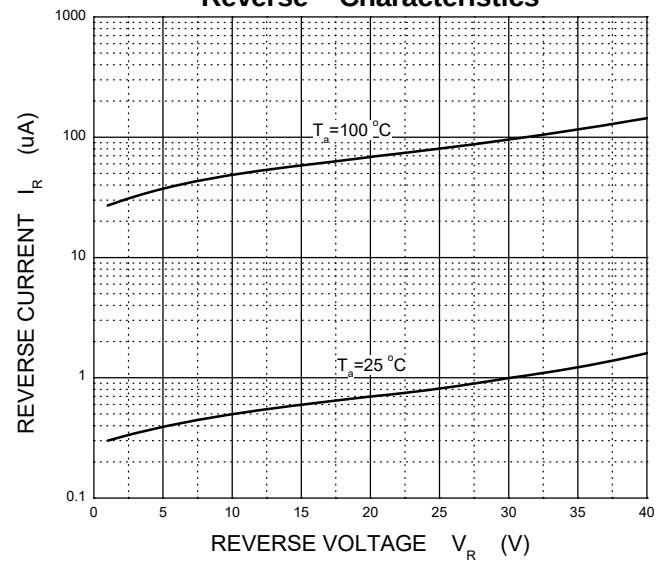
| Parameter                     | Symbol     | Min | Typ | Max          | Unit    | Conditions                                          |
|-------------------------------|------------|-----|-----|--------------|---------|-----------------------------------------------------|
| Reverse breakdown voltage     | $V_{(BR)}$ | 40  |     |              | V       | $I_R=100\mu A$                                      |
| Forward voltage               | $V_F$      |     |     | 0.37<br>0.50 | V       | $I_F=20mA$<br>$I_F=100mA$                           |
| Reverse current               | $I_R$      |     |     | 2.0<br>5.0   | $\mu A$ | $V_R=10V$<br>$V_R=30V$                              |
| Capacitance between terminals | $C_T$      |     | 50  |              | pF      | $V_R=0V, f=1.0MHz$                                  |
| Reverse recovery time         | $t_{rr}$   |     | 10  |              | ns      | $I_F=I_R=200mA$<br>$I_{rr}=0.1X I_R, R_L=100\Omega$ |

## Typical Characteristics

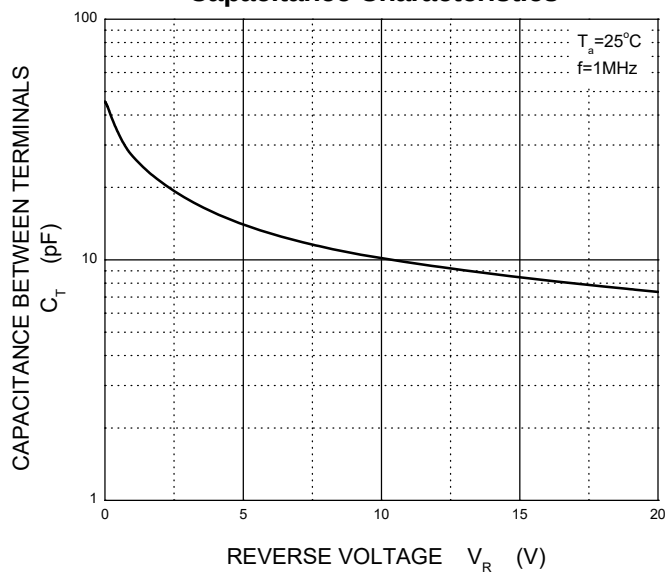
**Forward Characteristics**



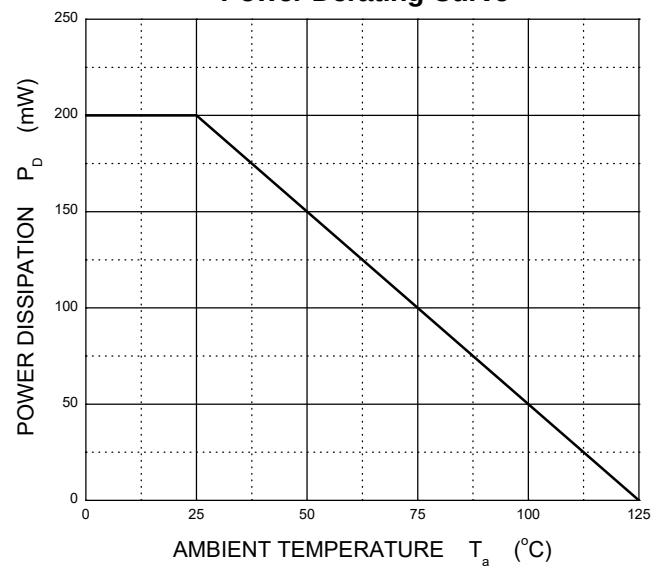
**Reverse Characteristics**



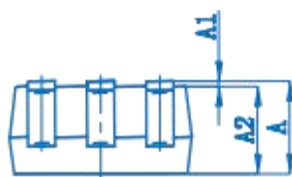
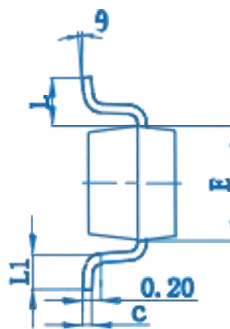
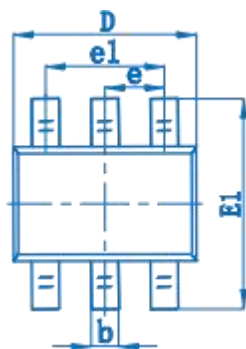
**Capacitance Characteristics**



**Power Derating Curve**

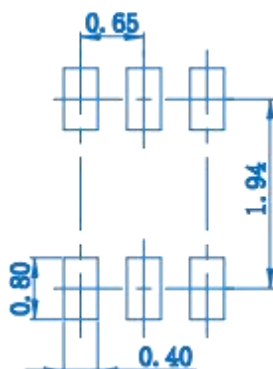


## SOT-363 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.100 | 0.035                | 0.043 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.000 | 0.035                | 0.039 |
| b      | 0.150                     | 0.350 | 0.006                | 0.014 |
| c      | 0.100                     | 0.150 | 0.004                | 0.006 |
| D      | 2.000                     | 2.200 | 0.079                | 0.087 |
| E      | 1.150                     | 1.350 | 0.045                | 0.053 |
| E1     | 2.150                     | 2.400 | 0.085                | 0.094 |
| e      | 0.650 TYP                 |       | 0.026 TYP            |       |
| e1     | 1.200                     | 1.400 | 0.047                | 0.055 |
| L      | 0.525 REF                 |       | 0.021 REF            |       |
| L1     | 0.260                     | 0.460 | 0.010                | 0.018 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## SOT-363 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.