

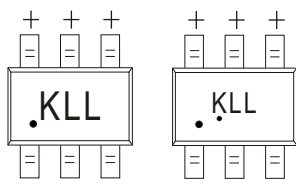


SCHOTTKY BARRIER DIODE

FEATURES

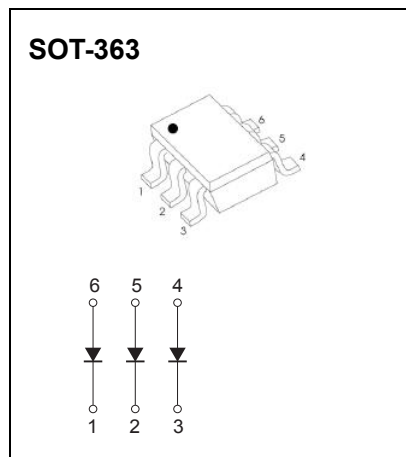
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Leakage Current

MARKING: KLL



Solid dot = Pin1 indicator

Solid dot = Green molding compound device, if none, the normal device.



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

| | | 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 |
| Junction Temperature | T_j | 125 | °C |
| Storage Temperature | T_{STG} | -55~+150 | °C |

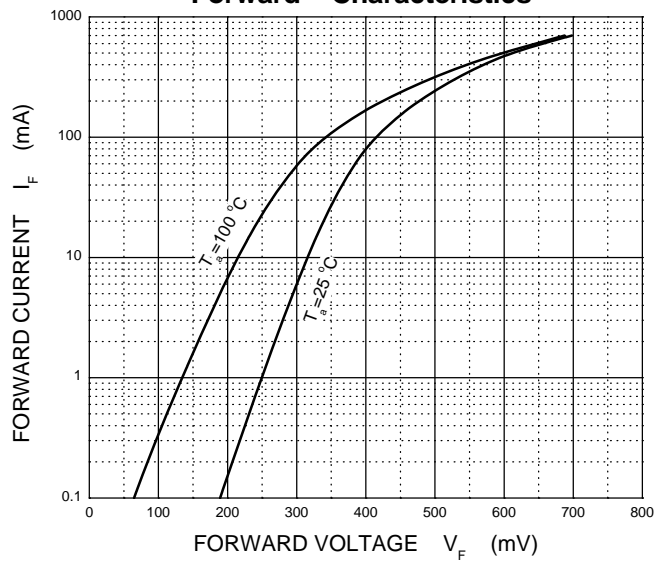
Electrical Ratings @Ta=25°C

| 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 0.50 | V | $I_F=20mA$ $I_F=100mA$ |
| Reverse current | I_R | | | 2.0 5.0 | μA | $V_R=10V$ $V_R=30V$ |
| Capacitance between terminals | C_T | | 50 | | pF | $V_R=0V, f=1.0MHz$ |
| Reverse recovery time | t_{rr} | | 10 | | ns | $I_F=I_R=200mA$ $I_{rr}=0.1I_{IR}, R_L=100\Omega$ |

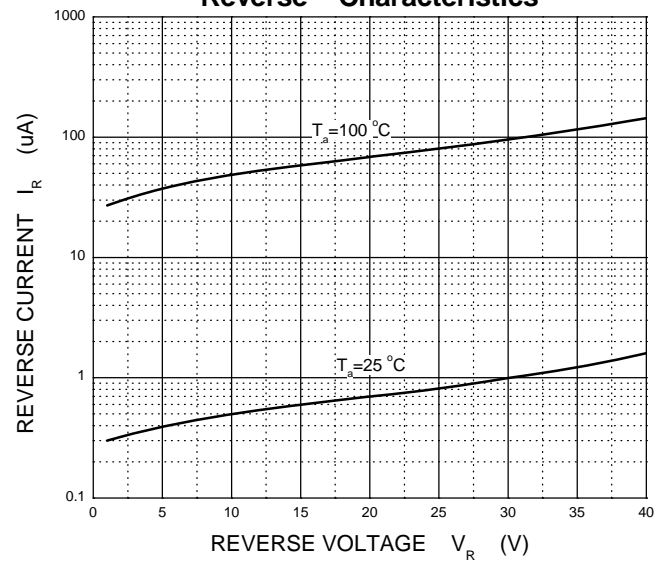


Typical Characteristics

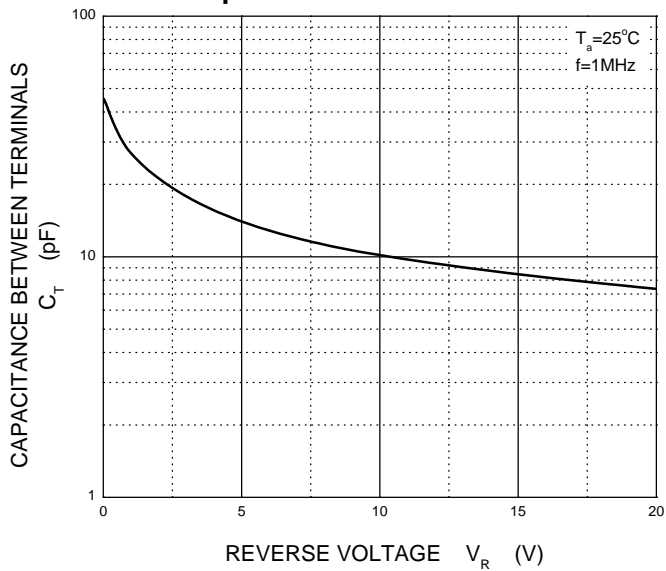
Forward Characteristics



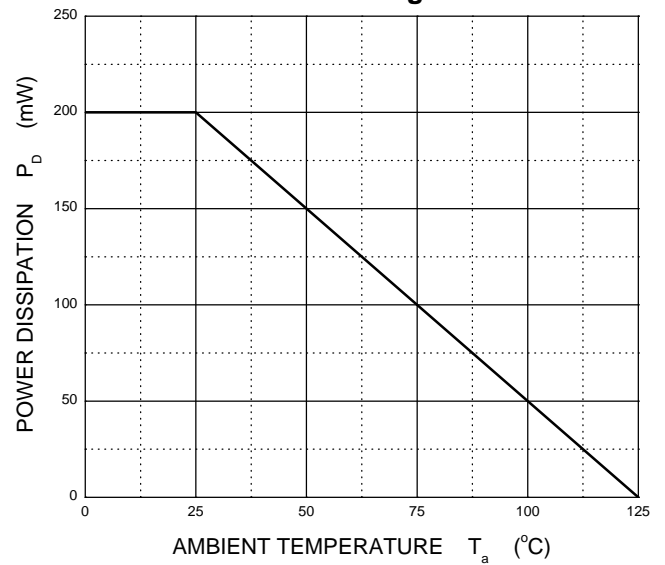
Reverse Characteristics



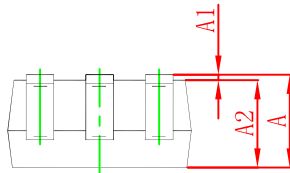
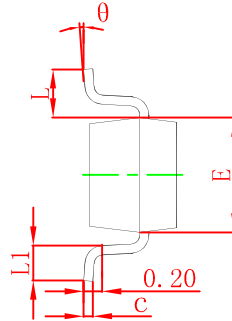
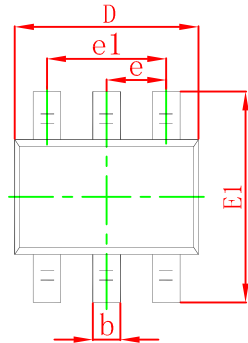
Capacitance Characteristics



Power Derating Curve

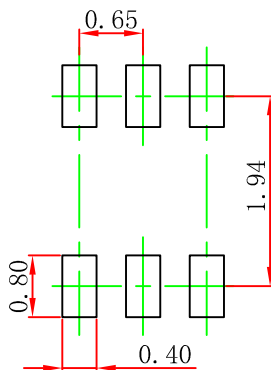


SOT-363 Package Outline Dimensions



| 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.