

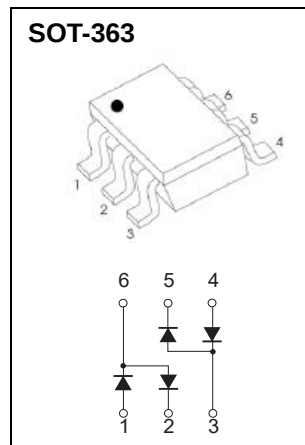
## SOT-363 Plastic-Encapsulate Diodes

### SWITCHING DIODE

#### FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

#### MAKING: KJG



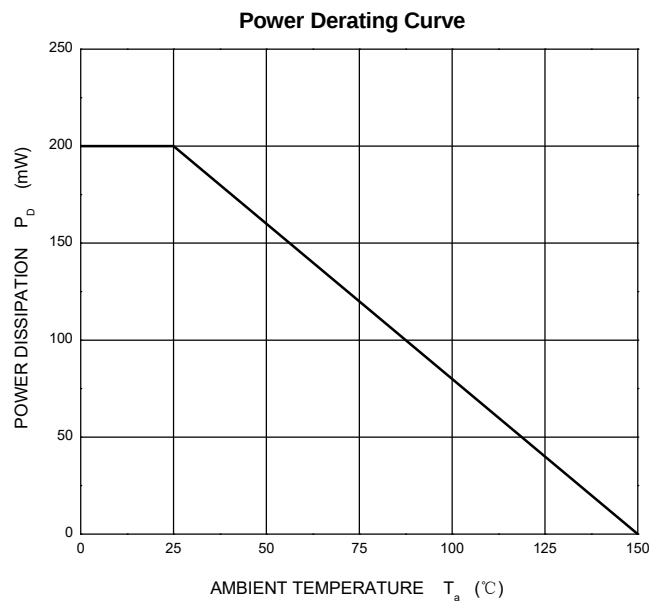
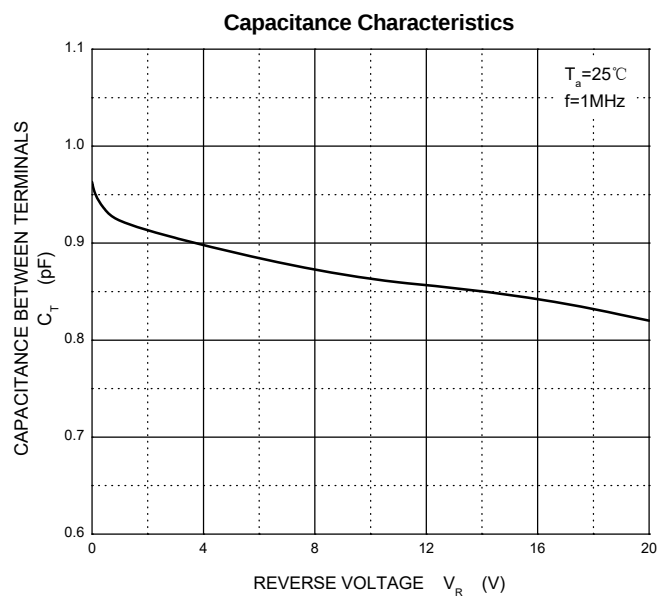
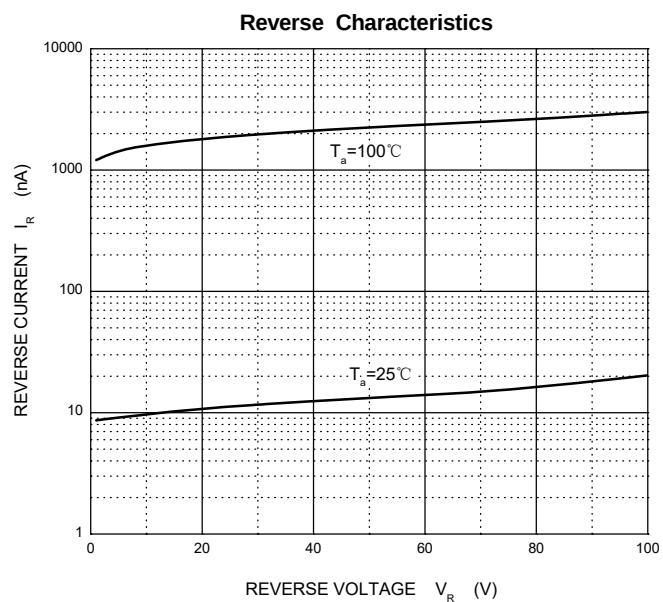
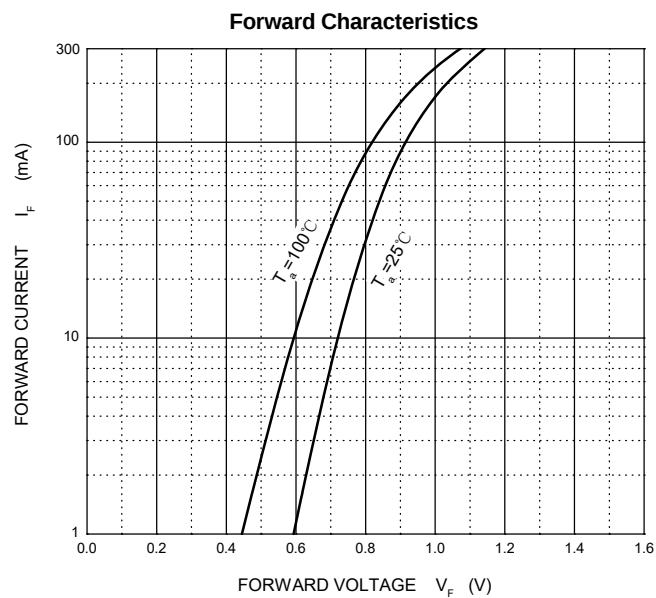
#### Maximum Ratings @Ta=25°C

| Parameter                                                                                   | Symbol                          | Limit    | Unit |
|---------------------------------------------------------------------------------------------|---------------------------------|----------|------|
| Peak Repetitive Peak Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 75       | V    |
| Forward Continuous Current                                                                  | $I_{FM}$                        | 300      | mA   |
| Average Rectified Output Current                                                            | $I_O$                           | 150      | mA   |
| Non-Repetitive Peak Forward Surge Current @ t=8.3ms                                         | $I_{FSM}$                       | 2.0      | A    |
| Power Dissipation                                                                           | $P_D$                           | 200      | mW   |
| Thermal Resistance Junction to Ambient                                                      | $R_{\theta JA}$                 | 625      | °C/W |
| Operation Junction and Storage Temperature Range                                            | $T_J, T_{STG}$                  | -55~+150 | °C   |

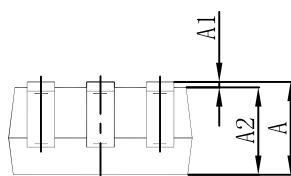
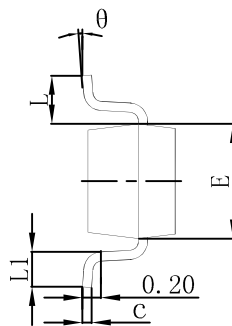
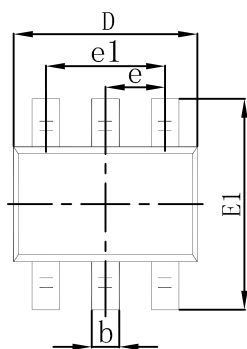
#### ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C unless otherwise specified)

| Parameter             | Symbol     | Test conditions                                      | Min | Typ | Max   | Unit    |
|-----------------------|------------|------------------------------------------------------|-----|-----|-------|---------|
| Reverse voltage       | $V_{(BR)}$ | $I_R=2.5\mu A$                                       | 75  |     |       | V       |
| Reverse current       | $I_R$      | $V_R=75V$                                            |     |     | 2.5   | $\mu A$ |
|                       |            | $V_R=20V$                                            |     |     | 25    | nA      |
| Forward voltage       | $V_F$      | $I_F=1mA$                                            |     |     | 0.715 | V       |
|                       |            | $I_F=10mA$                                           |     |     | 0.855 |         |
|                       |            | $I_F=50mA$                                           |     |     | 1     |         |
|                       |            | $I_F=150mA$                                          |     |     | 1.25  |         |
| Total capacitance     | $C_{tot}$  | $V_R=0, f=1MHz$                                      |     |     | 2     | pF      |
| Reverse recovery time | $t_{rr}$   | $I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$ |     |     | 4     | ns      |

## Typical Characteristics

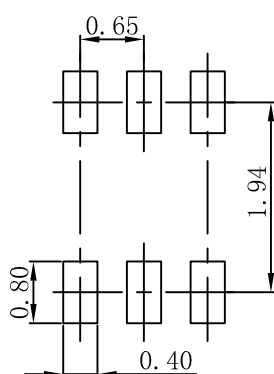


## SOT-363 Package Outline Dimensions



| 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.

### NOTICE

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