

## Maximum Ratings (@T<sub>A</sub> = +25°C, unless otherwise specified.)

| Characteristic                            | Symbol              | Value       | Unit |
|-------------------------------------------|---------------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage       | V <sub>RM</sub>     | 100         | V    |
| Peak Repetitive Reverse Voltage           | V <sub>RRM</sub>    | 80          | V    |
| Working Peak Reverse Voltage              | V <sub>RWM</sub>    |             |      |
| DC Blocking Voltage                       | V <sub>R</sub>      |             |      |
| RMS Reverse Voltage                       | V <sub>R(RMS)</sub> | 57          | V    |
| Forward Continuous Current (Note 5)       | I <sub>FM</sub>     | 500         | mA   |
| Non-Repetitive Peak Forward Surge Current | I <sub>FSM</sub>    | @ t = 1.0μs | 4.0  |
|                                           |                     | @ t = 1.0s  | 1.0  |

## Thermal Characteristics

| Characteristic                                      | Symbol                            | Value       | Unit |
|-----------------------------------------------------|-----------------------------------|-------------|------|
| Power Dissipation (Note 5)                          | P <sub>D</sub>                    | 200         | mW   |
| Thermal Resistance Junction to Ambient Air (Note 5) | R <sub>θJA</sub>                  | 625         | °C/W |
| Operating and Storage Temperature Range             | T <sub>J</sub> , T <sub>STG</sub> | -65 to +150 | °C   |

## Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

| Characteristic                     | Symbol             | Min  | Max   | Unit | Test Condition                                |
|------------------------------------|--------------------|------|-------|------|-----------------------------------------------|
| Reverse Breakdown Voltage (Note 6) | V <sub>(BR)R</sub> | 80   | —     | V    | I <sub>R</sub> = 100μA                        |
| Forward Voltage                    | V <sub>F</sub>     | 0.62 | 0.72  | V    | I <sub>F</sub> = 5.0mA                        |
|                                    |                    | —    | 0.855 |      | I <sub>F</sub> = 10mA                         |
|                                    |                    | —    | 1.0   |      | I <sub>F</sub> = 100mA                        |
|                                    |                    | —    | 1.25  |      | I <sub>F</sub> = 150mA                        |
| Reverse Current (Note 6)           | I <sub>R</sub>     | —    | 100   | nA   | V <sub>R</sub> = 70V                          |
|                                    |                    |      | 50    | μA   | V <sub>R</sub> = 75V, T <sub>J</sub> = +150°C |
|                                    |                    |      | 30    | μA   | V <sub>R</sub> = 25V, T <sub>J</sub> = +150°C |
|                                    |                    |      | 25    | nA   | V <sub>R</sub> = 20V                          |
| Total Capacitance                  | C <sub>T</sub>     | —    | 3.5   | pF   | V <sub>R</sub> = 6V, f = 1.0MHz               |
| Reverse Recovery Time              | t <sub>rr</sub>    | —    | 4.0   | ns   | V <sub>R</sub> = 6V, I <sub>F</sub> = 5mA     |

Notes: 5. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at <http://www.diodes.com>.  
6. Short duration pulse test used to minimize self-heating effect.

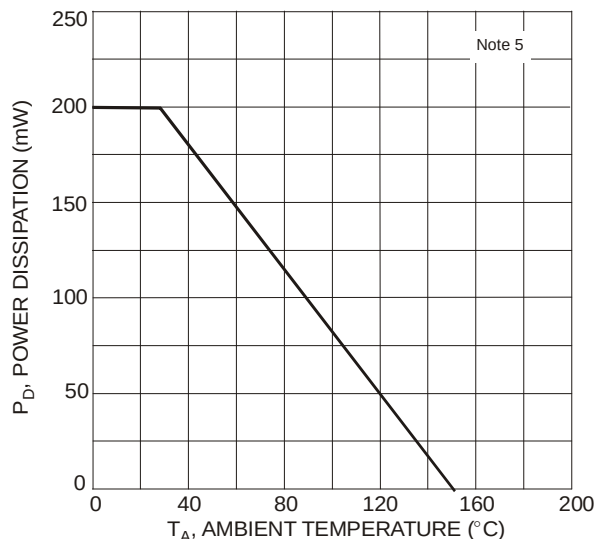


Figure 1 Power Derating Curve, Total Package

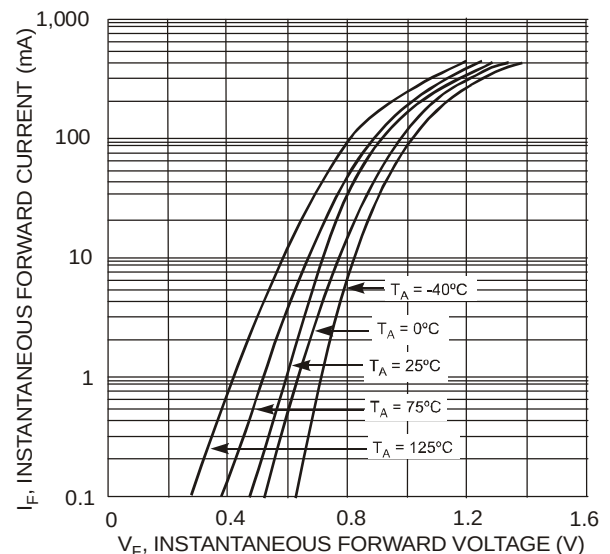


Figure 2 Typical Forward Characteristics

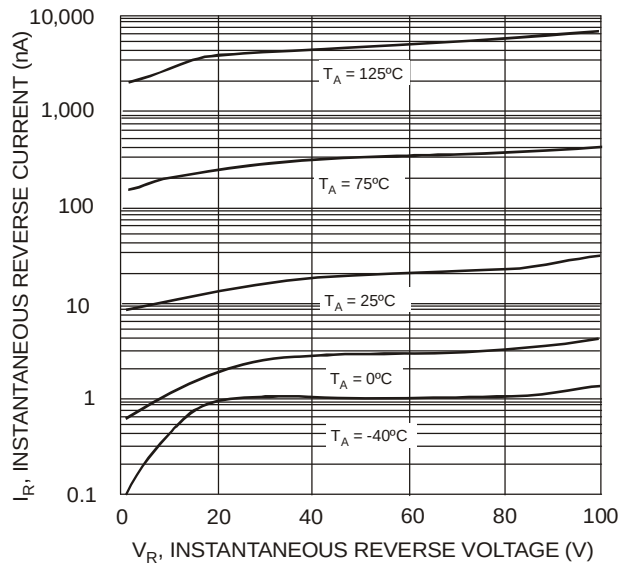


Figure 3 Typical Reverse Characteristics

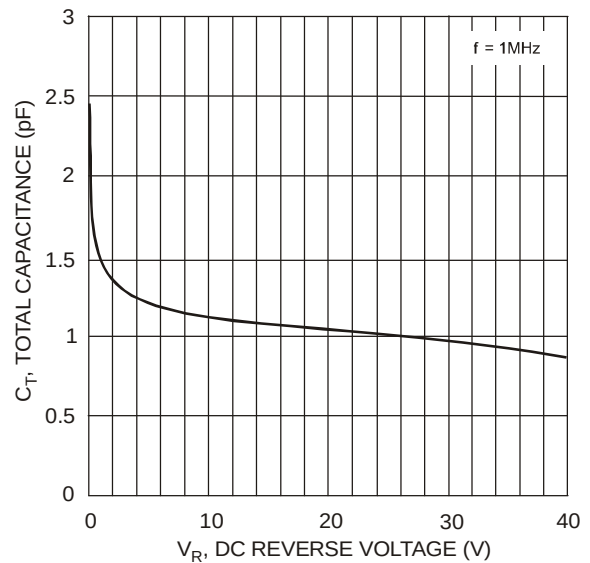


Figure 4 Total Capacitance vs. Reverse Voltage

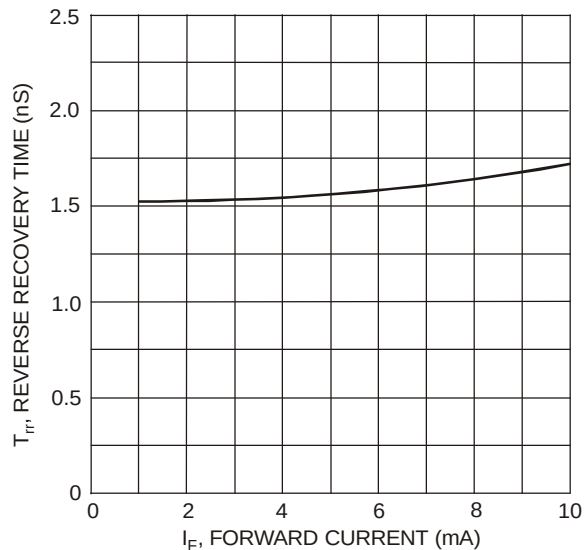
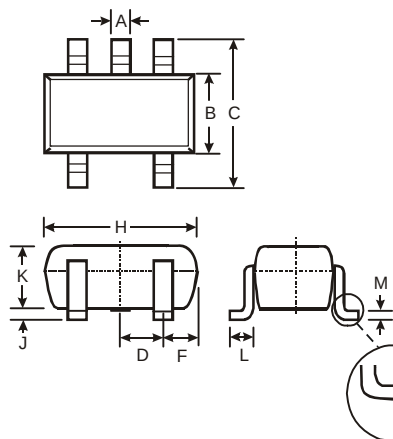
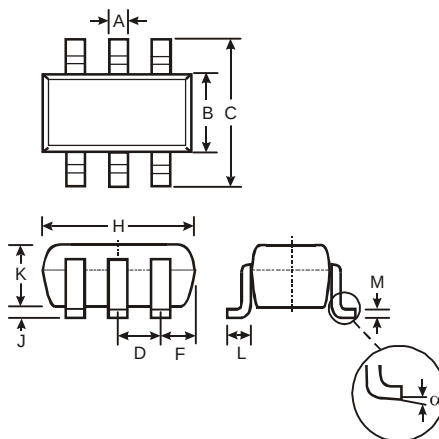


Figure 5 Reverse Recovery Time vs. Forward Current

## Package Outline Dimensions

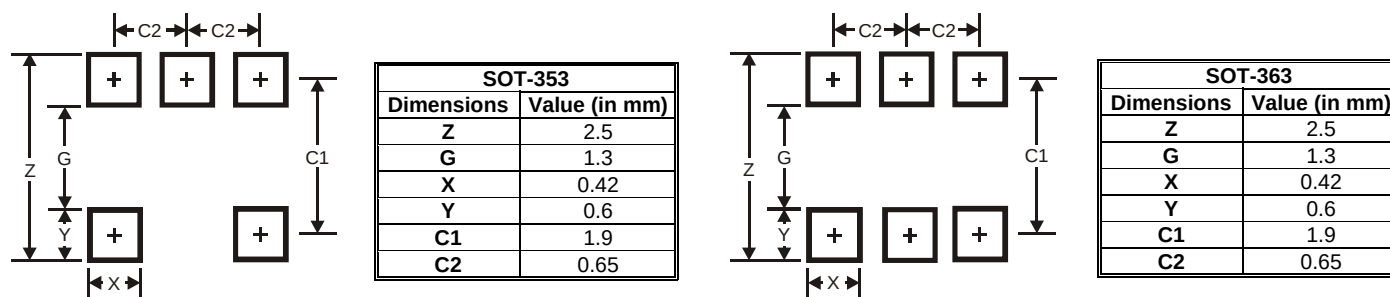


| SOT-353              |          |      |
|----------------------|----------|------|
| Dim                  | Min      | Max  |
| A                    | 0.10     | 0.30 |
| B                    | 1.15     | 1.35 |
| C                    | 2.00     | 2.20 |
| D                    | 0.65 Typ |      |
| F                    | 0.40     | 0.45 |
| H                    | 1.80     | 2.20 |
| J                    | 0        | 0.10 |
| K                    | 0.90     | 1.00 |
| L                    | 0.25     | 0.40 |
| M                    | 0.10     | 0.22 |
| α                    | 0°       | 8°   |
| All Dimensions in mm |          |      |



| SOT-363              |          |      |
|----------------------|----------|------|
| Dim                  | Min      | Max  |
| A                    | 0.10     | 0.30 |
| B                    | 1.15     | 1.35 |
| C                    | 2.00     | 2.20 |
| D                    | 0.65 Typ |      |
| F                    | 0.40     | 0.45 |
| H                    | 1.80     | 2.20 |
| J                    | 0        | 0.10 |
| K                    | 0.90     | 1.00 |
| L                    | 0.25     | 0.40 |
| M                    | 0.10     | 0.22 |
| α                    | 0°       | 8°   |
| All Dimensions in mm |          |      |

## Suggested Pad Layout



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