



UCR2050

CURRENT REGULATIVE DIODE

CURRENT REGULATOR DIODES

■ DESCRIPTION

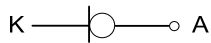
The UTC **UCR2050** is a CRD diode, which supplies constant current to an electric circuit, even if the power supply voltage fluctuations or load impedance fluctuations occur, can steady a current at a fixed value.

CRD diode is used for current stabilization and current limiting.

■ FEATURES

- * Than 1V or less low voltage constant current implementation
- * Maximum voltage of 100V or more
- * Good frequency response characteristics
- * AC equivalent impedance is high
- * Negative temperature coefficient
- * Low start-up voltage
- * DC equivalent impedance is low

■ SYMBOL



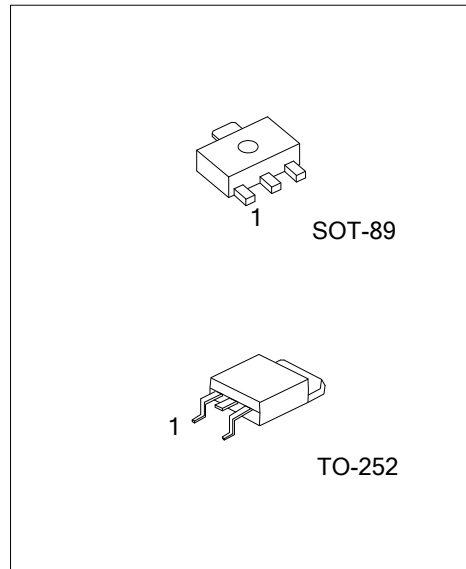
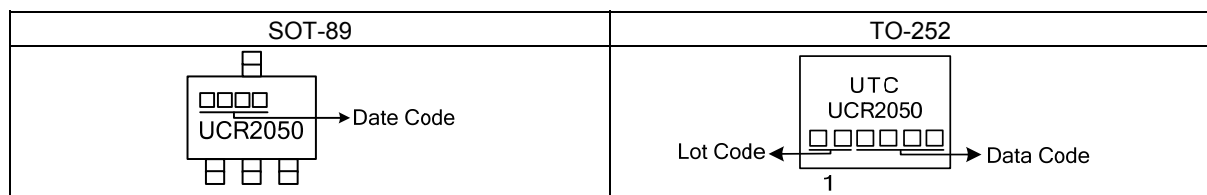
■ ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|----------------|---------|----------------|---|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| - | UCR2050G-AB3-R | SOT-89 | K | K | A | Tape Reel |
| UCR2050L-TN3-R | UCR2050G-TN3-R | TO-252 | K | K | A | Tape Reel |

Note: Pin Assignment: A: Anode K: Cathode

| | |
|-----------------------|---|
| <p>UCR2050G-AB3-R</p> | <p>(1) T: Tube, R: Tape Reel (2) AB3: SOT-89, TN3: TO-252 (3) L: Lead Free, G: Halogen Free and Lead Free</p> |
|-----------------------|---|

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--------------------------------|------------------|------------|------|
| Peak Operating Voltage | P _{OV} | 100 | V |
| Power Dissipation | P _D | 0.5 | W |
| Operating Junction Temperature | T _J | +125 | °C |
| Storage Temperature | T _{STG} | -40 ~ +125 | °C |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

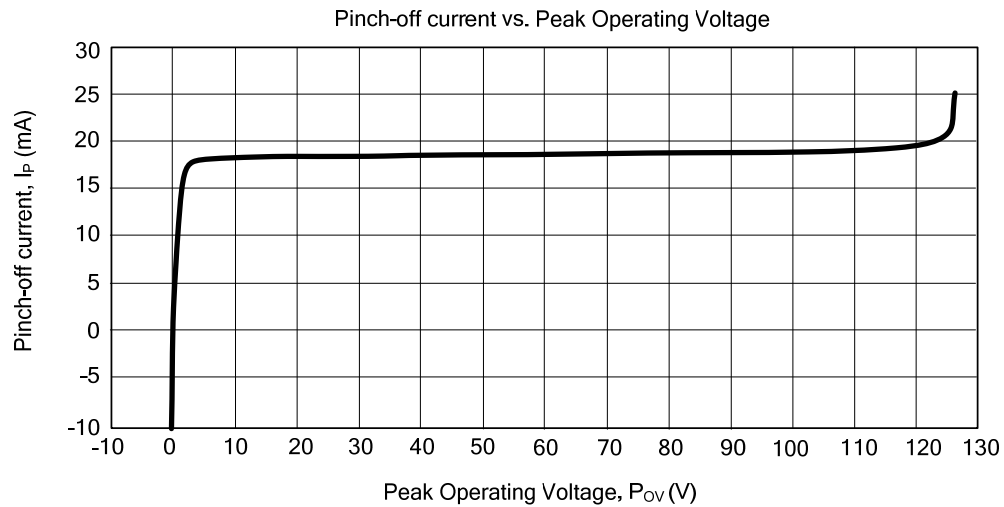
■ THERMAL CHARACTERISTICS

| PARAMETER | SYMBOL | RATINGS | UNIT |
|----------------------------|-----------------|---------|------|
| Typical Thermal Resistance | θ _{JC} | 43 | °C/W |
| | | 6 | °C/W |

■ ELECTRICAL CHARACTERISTICS (PER LEG) (T_A=25°C unless otherwise specified.)

| Test Voltage (V) | Pinch-off current | | | Limiting Current | | Limiting Current Ratio I _{30V} / I _P |
|---------------------|---------------------|------|------|--------------------|---------------------|---|
| | I _P (mA) | | | V _K (V) | I _K (mA) | |
| | MIN. | TYP. | MAX. | | | |
| 10 | 17.0 | 20.5 | 24.0 | ≤ 4 | 0.8 I _P | ≤ 1.1 |

■ TYPICAL CHARACTERISTICS



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