



TGBR10L45

DIODE

TRENCH MOS SCHOTTKY BARRIER RECTIFIER

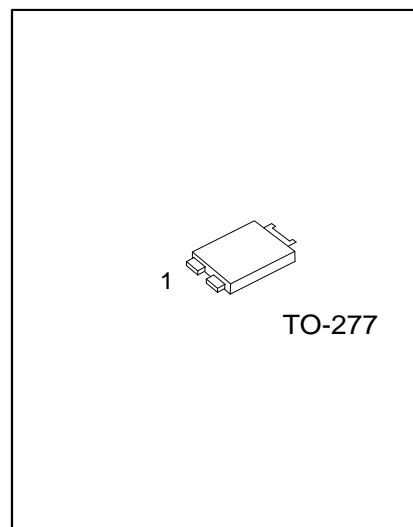
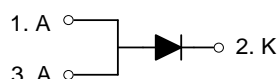
DESCRIPTION

The UTC **TGBR10L45** is a trench mos schottky barrier rectifier, it uses UTC's advanced technology to provide customers with low forward voltage drop and high switching speed, etc.

FEATURES

- * Low forward voltage drop
- * High switching speed

SYMBOL



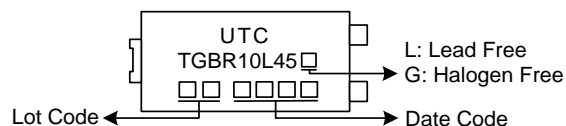
ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|------------------|------------------|---------|----------------|---|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| TGBR10L45L-T27-R | TGBR10L45G-T27-R | TO-277 | A | K | A | Tape Reel |

Note: Pin Assignment: A: Anode K: Common Cathode

| | |
|--|---|
| <p>TGBR10L45G-T27-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p> | <p>(1) R: Tape Reel</p> <p>(2) T27: TO-227</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p> |
|--|---|

MARKING



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

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|------------------|------------|------|
| DC Blocking Voltage | V _{RM} | 45 | V |
| Working Peak Reverse Voltage | V _{RWM} | 45 | V |
| Peak Repetitive Reverse Voltage | V _{RRM} | 45 | V |
| Average Rectified Output Current | I _O | 10 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load | I _{FSM} | 310 | A |
| Operating Junction Temperature | T _J | -65 ~ +150 | °C |
| Storage Temperature | T _{STG} | -65 ~ +150 | °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 DATA (PER LEG)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---------------------|-----------------|-------------|------|
| Junction to Ambient | θ _{JA} | 73 (Note 3) | °C/W |

Note: Mounted on an FR4 PCB, single-sided copper, with 100 cm² copper pad area.

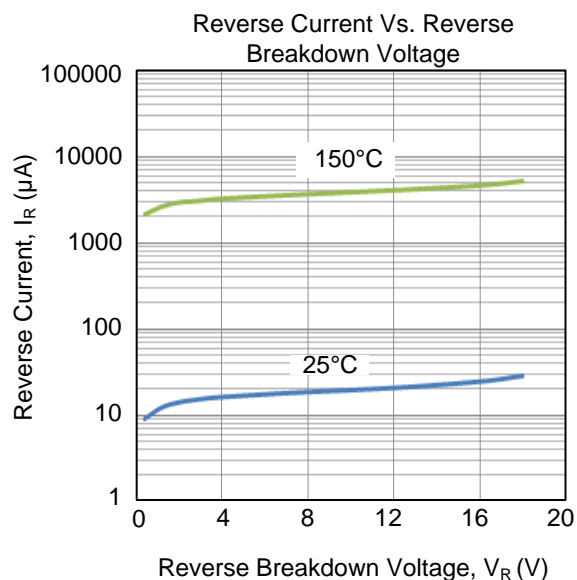
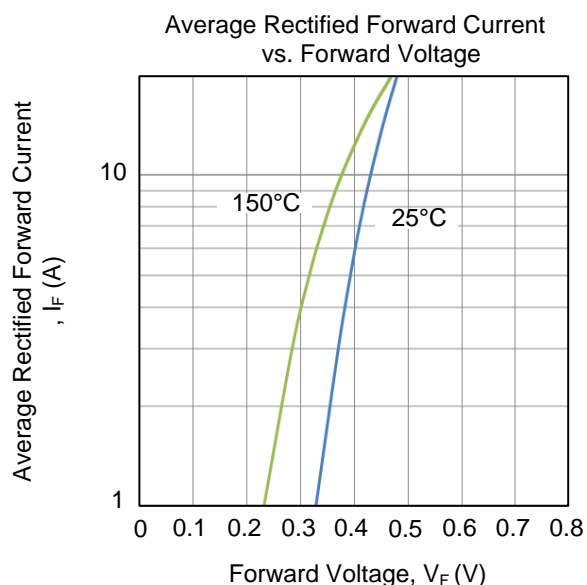
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified.)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|------------------------------------|--------------------|--|-----|-----|------|------|
| Reverse Breakdown Voltage (Note 1) | V _{(BR)R} | I _R =0.5mA | 45 | | | V |
| Forward Voltage Drop | V _{FM} | I _F =10A, T _J =25°C | | | 0.60 | V |
| | | I _F =10A, T _J =125°C | | | 0.55 | V |
| Leakage Current (Note 1) | I _{RM} | V _R =45V, T _J =25°C | | | 300 | μA |
| | | V _R =45V, T _J =125°C | | | 40 | mA |

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS



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