



UFR6060

FAST RECOVERY EPITAXIAL DIODE

SUPERFAST RECOVERY RECTIFIER

DESCRIPTION

The UTC **UFR6060** is a superfast recovery rectifier, has half the recovery time of ultrafast diodes.

The UTC **UFR6060** is intended for use as a freewheeling/clamping diode and rectifier in a variety of high frequency switching power supplies and other power switching applications. Its low stored charge and hyperfast soft recovery characteristic minimize ringing and electrical noise in many power switching circuits, thus reducing power loss in the switching transistors.

FEATURES

- * Ultrafast soft recovery
- * High reverse voltage capability
- * High junction temperature

SYMBOL



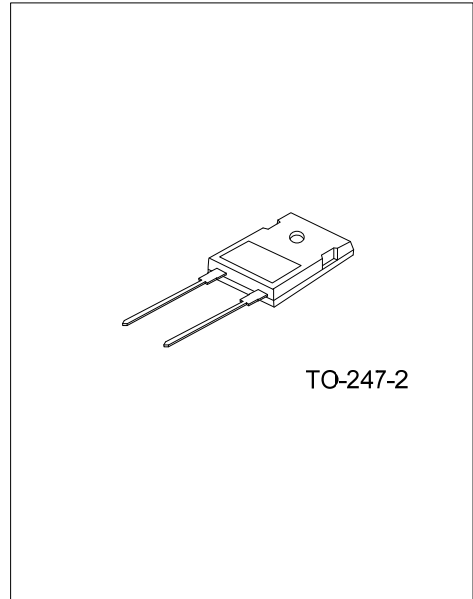
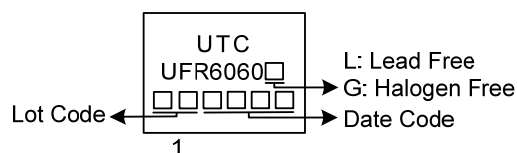
ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | Packing |
|-----------------|-----------------|----------|----------------|---|---------|
| Lead Free | Halogen Free | | 1 | 2 | |
| UFR6060L-T472-T | UFR6060G-T472-T | TO-247-2 | K | A | Tube |

Note: Pin Assignment: A: Anode K: Cathode

| | | |
|-----------------|------------------|-------------------------------------------------|
| UFR6060G-T472-T | (1)Packing Type | (1) T: Tube |
| | (2)Package Type | (2) T472: TO-247-2 |
| | (3)Green Package | (3) G: Halogen Free and Lead Free, L: Lead Free |

MARKING



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

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--------------------------------------|----------------------------------------------|------------|------|
| Repetitive Peak Reverse Voltage | V _{RRM} | 600 | V |
| Working Peak Reverse Voltage | V _{RWM} | 600 | V |
| DC Blocking Voltage | V _R | 600 | V |
| Average forward current, δ= 0.5% | T _C =42°C I _{F(AV)} | 60 | A |
| Repetitive peak forward current | Square Wave, 20kHz I _{FRM} | 120 | A |
| Surge non repetitive forward current | Half wave, 1 Phase, 60Hz I _{FSM} | 240 | A |
| Operating Junction Temperature | T _J | -65 ~ +175 | °C |
| Storage Temperature Range | T _{STG} | -65 ~ +175 | °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

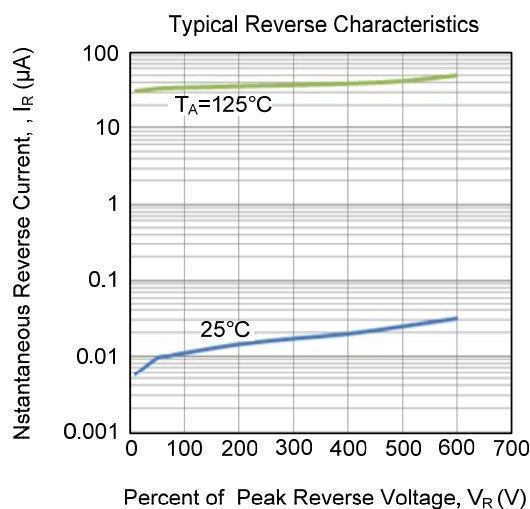
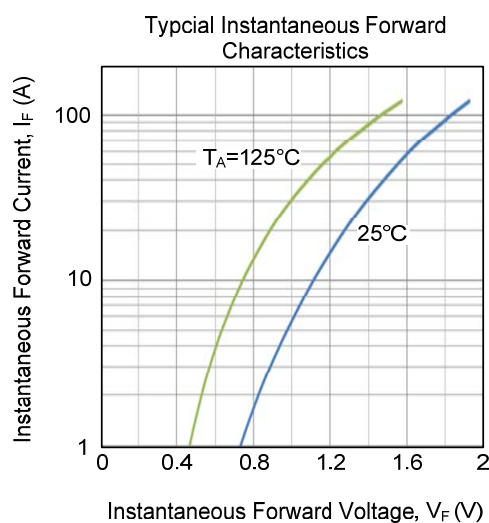
| PARAMETER | SYMBOL | RATINGS | UNIT |
|------------------|-----------------|---------|------|
| Junction to Case | θ _{JC} | 0.8 | °C/W |

■ ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|------------------------------------------|-----------------|---------------------------------------------------|-----------------------|-----|-----|------|
| Forward voltage drop (Note 1) | V _F | I _F =60A | T _C =25°C | | 2.1 | V |
| | | | T _C =150°C | | 1.9 | V |
| Maximum Reverse Leakage Current (Note 2) | I _R | V _R =V _{RRM} | T _C =25°C | | 10 | μA |
| | | | T _C =150°C | | 500 | μA |
| Reverse recovery time | t _{rr} | I _F =1.0A, dI _F /dt=100A/μs | | 75 | | ns |
| | | I _F =30A, dI _F /dt=100A/μs | | 92 | | ns |

■ TYPICAL CHARACTERISTICS



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