# T2060CT & T2060FCT

**20A/60V Low VF Schottky Barrier Rectifier**

## FEATURES

- ✧High current capability, low forward voltage
- ✧Excellent high temperature stability
- ✧Low power loss, and high efficiency
- ✧High forward surge capability
- ✧For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ✧RoHS compliant

## MACHANICAL DATA

- ✧Case:TO-220/TO-220F molded plastic package
- ✧Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧Molding Compound Flammability Rating:UL94-0
- ✧High temperature soldering guaranteed: 260°C/10second
- ✧Polarity: As marked
- ✧Mounting position: Any

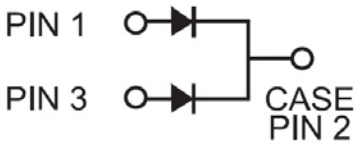
## ORDERING INFORMATION

- ✧Device:
  T2060CT
  T2060FCT
- ✧Package: TO-220/TO-220F
- ✧Marking: As marked
- ✧Material: RoHS compliant
- ✧Packing: Plastic tube
- ✧Quantity per tube: 50pcs

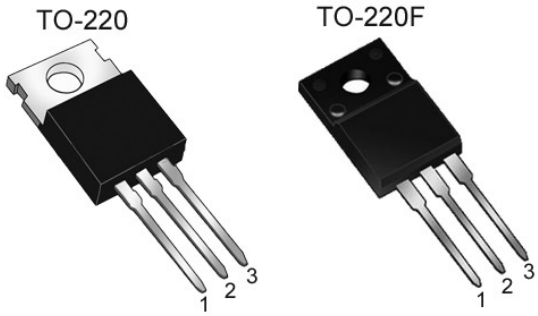
## APPLICATIONS

- ✧Switching mode power supply applications
- ✧Portable equipment battery applications
- ✧High frequency rectification
- ✧DC/DC converter

## PIN CONFIGURATION




## PACKAGE OUTLINE



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| ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified) | | | |
|---|---|---|---|
| **Symbol** | **Parameter** | **Value** | **Units** |
| $V_{RRM}$ | Repetitive Peak Reverse Voltage | 60 | V |
| $I_{F(AV)}$ | Average Forward Current Total device<br>Per Leg | 20<br>10 | A |
| $I_{FSM}$ | Peak Forward Surge Current, 8.3ms single half sine-wave Per Leg | 150 | A |
| $T_J$ & $T_{STG}$ | Junction and Storage Temperature | -50~+150 | °C |

| ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified) | | | | | | |
|---|---|---|---|---|---|---|
| **Symbol** | **Parameter** | **Test Condition** | **Min** | **Typ** | **Max** | **Units** |
| $V_F$ | Forward Voltage | $I_F$ = 3A Ta=25°C | | 0.37 | 0.40 | V |
| | | $I_F$ = 5A Ta=25°C | | 0.42 | 0.48 | V |
| | | $I_F$ = 10A Ta=25°C | | 0.51 | 0.58 | V |
| | | $I_F$ = 3A Ta=125°C | | 0.30 | | V |
| | | $I_F$ = 5A Ta=125°C | | 0.38 | | V |
| | | $I_F$ = 10A Ta=125°C | | 0.50 | | V |
| $V_R$ | Reverse Breakdown Voltage | $I_R$ = 0.5mA | 60 | | | V |
| $I_R$ | Reverse Leakage Current | $V_R$ = 60V Ta=25°C | | | 150 | μA |
| | | $V_R$ = 60V Ta=125°C | | 25 | | mA |
| $C_J$ | Junction Capacitance per Leg | f=1MHz, $V_R$=4V | | 410 | | pF |

## ELECTRICAL CHARACTERISTICS CURVE

Fig 1 Typical Forward Current Derating Curve

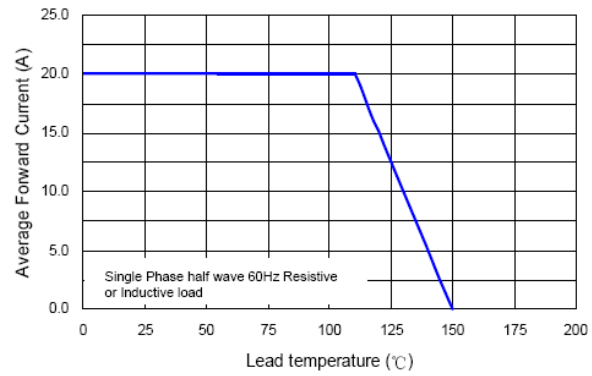



Fig 2 Typical Instantaneous Forward Characteristics

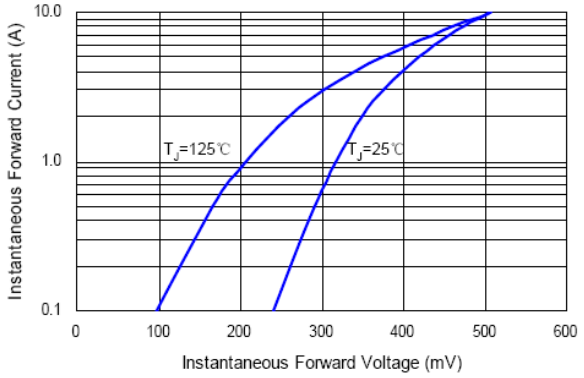



Fig 3 Max. Non-repetitive Forward Surge Current

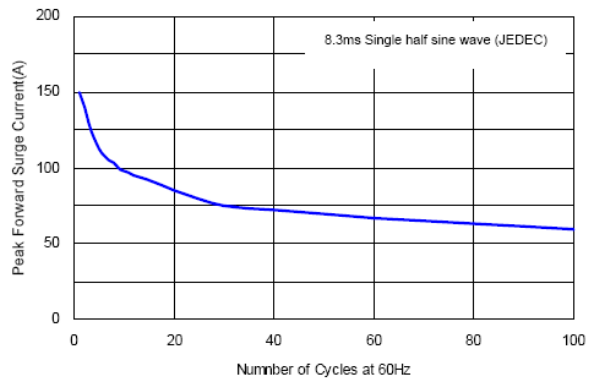



Fig 4 Typical Reverse Characteristics

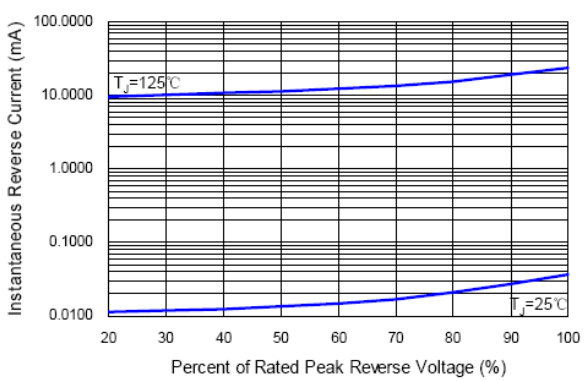
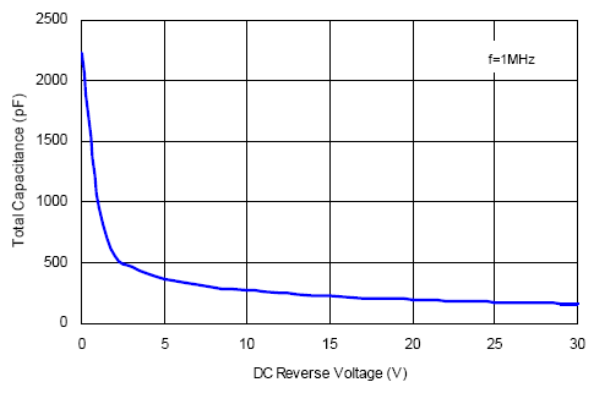



Fig 5 Total Capacitance vs. Reverse Voltage



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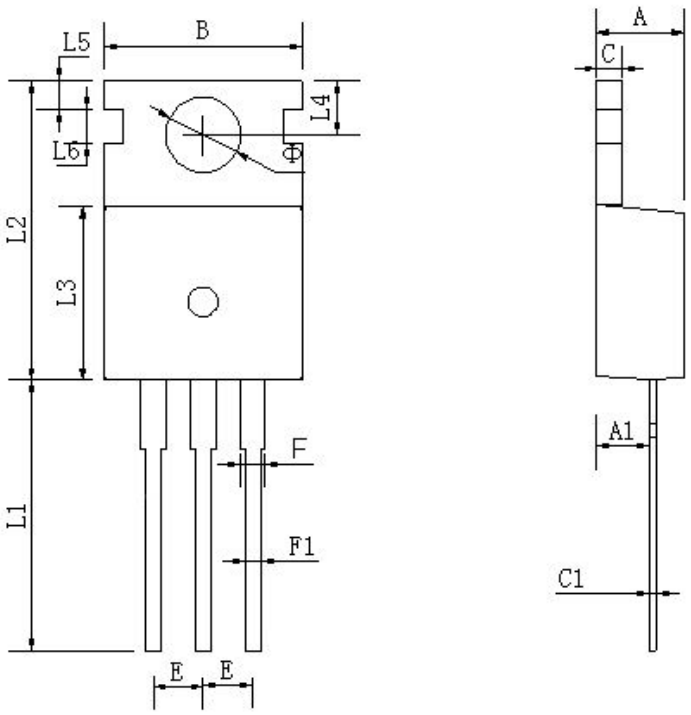
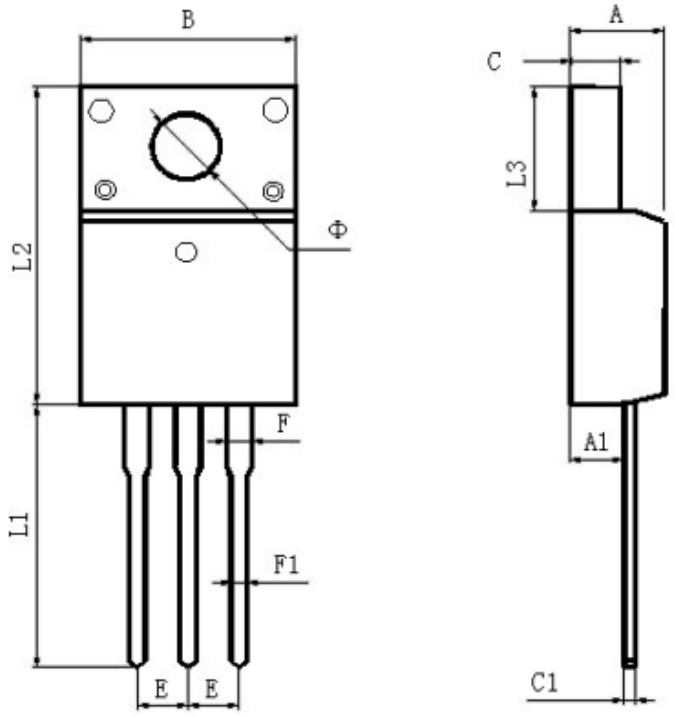
## TO-220 PACKAGE OUTLINE DIMENSIONS




| DIM | MIN | NOM | MAX |
|---|---|---|---|
| A | 4.25 | 4.45 | 4.65 |
| A1 | 2.47 | 2.67 | 2.87 |
| B | 9.86 | 10.16 | 10.46 |
| C | 1.22 | 1.27 | 1.37 |
| C1 | 0.33 | 0.38 | 0.48 |
| E | 2.44 | 2.54 | 2.64 |
| F | 1.07 | 1.27 | 1.47 |
| F1 | 0.7 | 0.8 | 0.9 |
| L1 | 12.5 | 13.5 | 14.5 |
| L2 | 14.94 | 15.24 | 15.54 |
| L3 | 8.55 | 8.85 | 9.15 |
| L4 | 2.54 | 2.74 | 2.94 |
| L5 | 1.07 | 1.27 | 1.47 |
| L6 | 1.45 | 1.65 | 1.85 |
| Φ | 3.64 | 3.84 | 4.04 |
| Unit mm | | | |

## TO-220F PACKAGE OUTLINE DIMENSIONS




| DIM | MIN | NOM | MAX |
|---|---|---|---|
| A | 4.50 | 4.70 | 4.90 |
| A1 | 2.56 | 2.76 | 2.96 |
| B | 9.86 | 10.16 | 10.46 |
| C | 2.34 | 2.54 | 2.74 |
| C1 | 0.45 | 0.50 | 0.60 |
| E | 2.34 | 2.54 | 2.74 |
| F | 1.08 | 1.28 | 1.48 |
| F1 | 0.7 | 0.8 | 0.9 |
| L1 | 11.98 | 12.98 | 13.98 |
| L2 | 15.57 | 15.87 | 16.17 |
| L3 | 6.48 | 6.68 | 6.88 |
| Φ | 2.98 | 3.18 | 3.38 |
| Unit mm | | | |