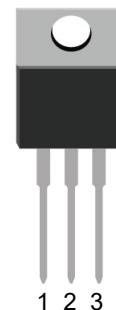


30A, 45V Low Forward Voltage Schottky Rectifiers

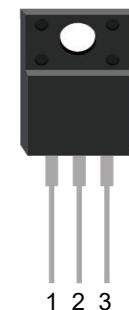
FEATURES

- Planar MOS schottky rectifiers
- Low forward voltage drop
- High efficiency, low power loss
- High temperature soldering guaranteed:
270°C/10 seconds for TO-220AB and ITO-220AB
260°C/10 seconds for TO-263AB
- RoHS compliant

TO-220AB



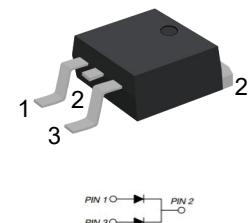
ITO-220AB



RoHS
COMPLIANT

**HALOGEN
FREE
AVAILABLE**

TO-263AB



MECHANICAL DATA

- Case: TO-220AB, ITO-220AB, TO-263AB
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

| P/N | Package |
|-----------|-----------|
| SP3045CT | TO-220AB |
| SP3045FCT | ITO-220AB |
| SP3045TA | TO-263AB |

TYPICAL APPLICATION

General purpose use in AC/DC wave rectification for SMPS, lighting, adapter, charger, home appliance, office equipment and telecommunication.

MAXIMUM RATINGS

T_A=25°C unless otherwise noted

| Parameter | Symbol | Value | Unit |
|--|--------------------|-------------|------|
| Repetitive Peak Reverse Voltage | V _{RRM} | 45 | V |
| Average Forward Rectified Current | I _{F(AV)} | 30 | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I _{FSM} | 250 | A |
| Operating Junction Temperature Range | T _J | -55 to +150 | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS

T_A=25°C unless otherwise noted

| Parameter | Test Conditions | Symbol | Value | | Unit |
|---|-----------------------|------------------|--------------|------|------|
| | | | Typ. | Max. | |
| Forward Voltage@ I _F =15A per leg | T _A =25°C | V _F | 0.49 | 0.52 | V |
| | T _A =125°C | | 0.42 | 0.45 | |
| Reverse Current @ V _{RRM} | T _A =25°C | I _R | 60 | 120 | uA |
| | T _A =125°C | | 30 | 100 | |
| Typical Thermal Resistance TO-220AB ITO-220AB TO-263AB | | R _{θJC} | 2 4 15 | | °C/W |

30A, 45V Low Forward Voltage Schottky Rectifiers

RATINGS AND CHARACTERISTIC CURVES

$T_A=25^\circ\text{C}$ unless otherwise noted

FIG.1: Forward Output Current Derating Curve

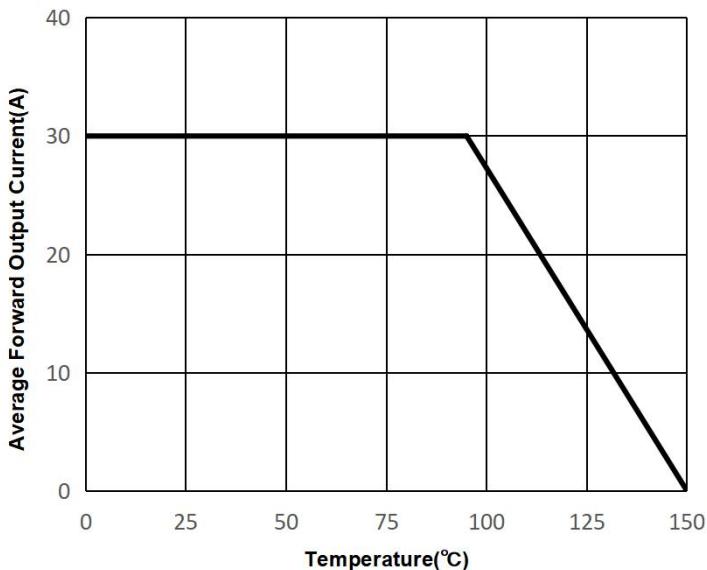


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

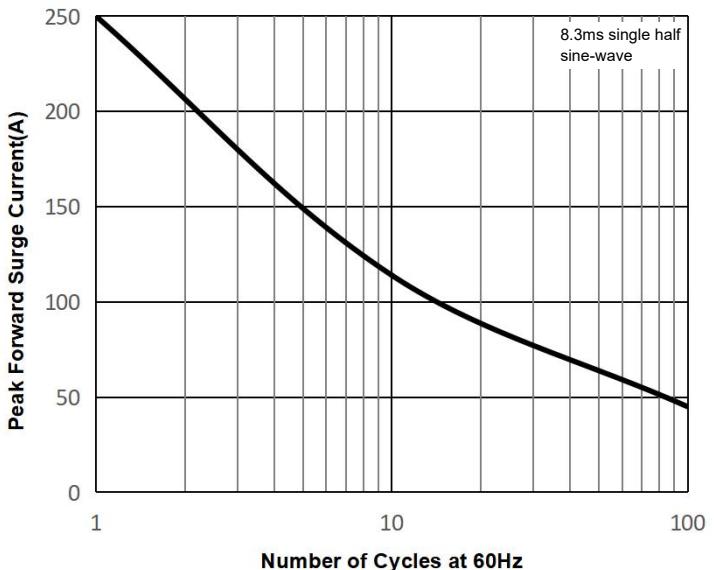


FIG.3: Typical Forward Characteristics

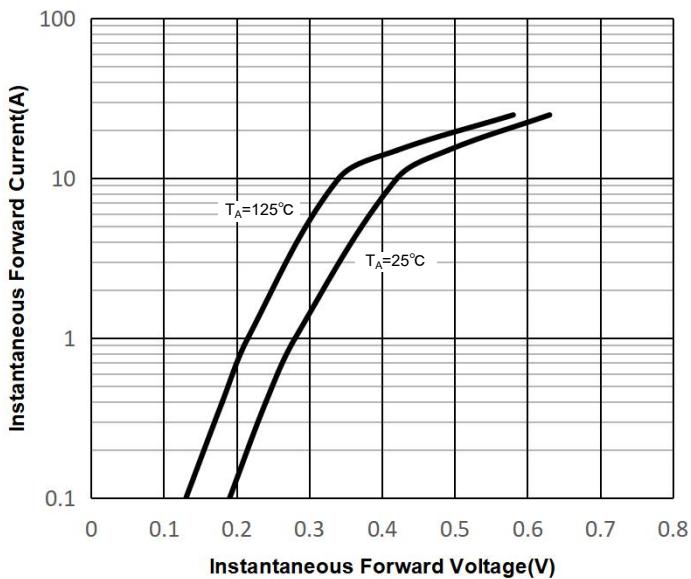
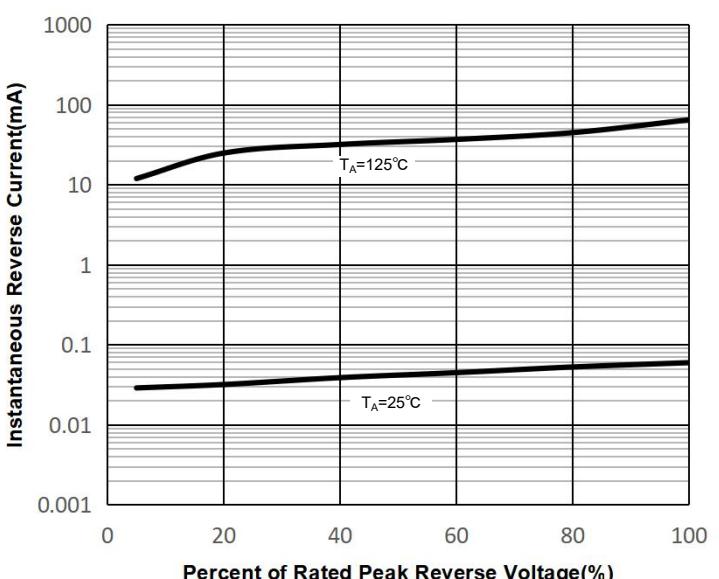


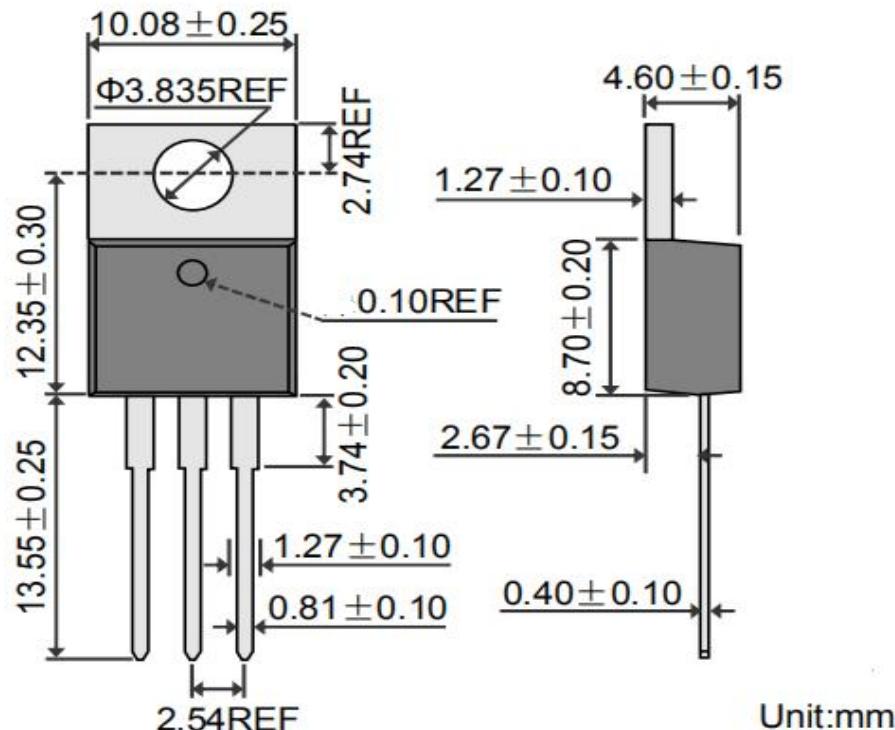
FIG.4: Typical Reverse Characteristics



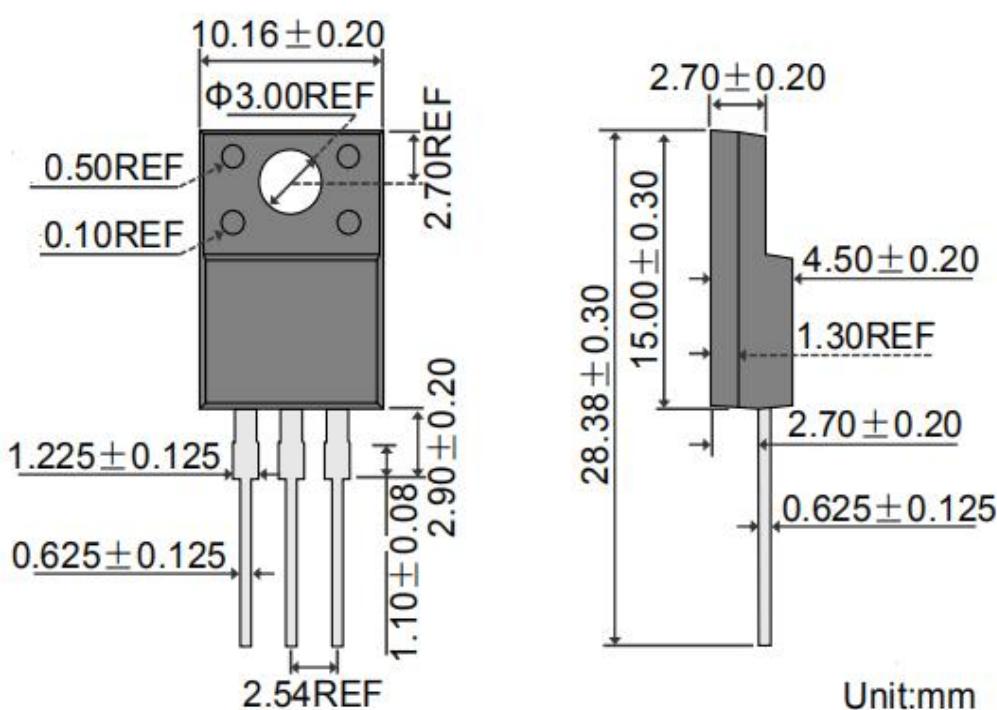
30A, 45V Low Forward Voltage Schottky Rectifiers

PACKAGE OUTLINE DIMENSIONS

TO-220AB

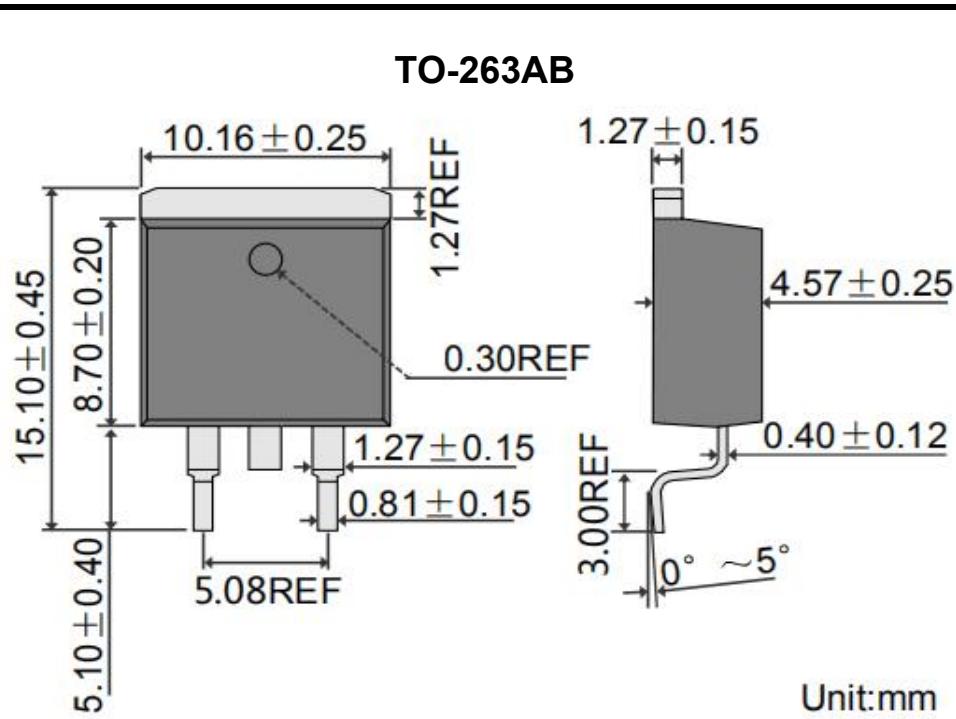


ITO-220AB



30A, 45V Low Forward Voltage Schottky Rectifiers

PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

| Package | Tube(PCS) | Inner Box(PCS) | Carton(PCS) |
|-----------|-----------|----------------|-------------|
| TO-220AB | 50 | 1,000 | 5,000 |
| ITO-220AB | 50 | 1,000 | 5,000 |
| TO-263AB | 50 | 1,000 | 5,000 |