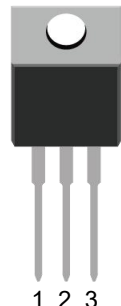


20A, 45V Low Forward Voltage Schottky Rectifiers

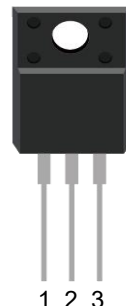
FEATURES

- 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



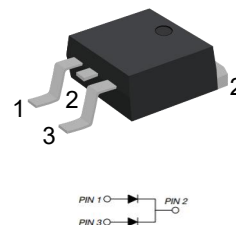
ITO-220AB



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 |
|-----------|-----------|
| SP2045CT | TO-220AB |
| SP2045FCT | ITO-220AB |
| SP2045TA | TO-263AB |

TYPICAL APPLICATION

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

MAXIMUM RATINGS

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

| Parameter | Symbol | Value | Unit |
|--|-------------|-------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 45 | V |
| Average Forward Rectified Current | $I_{F(AV)}$ | 20 | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I_{FSM} | 150 | A |
| Operating Junction Temperature Range | T_J | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS

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

| Parameter | Test Conditions | Symbol | Value | | Unit |
|---|-------------------------|-----------------|-------|------|---------------------------|
| | | | Typ. | Max. | |
| Forward Voltage@ $I_F=10\text{A}$ per leg | $T_A=25^\circ\text{C}$ | V_F | 0.47 | 0.51 | V |
| | $T_A=125^\circ\text{C}$ | | 0.4 | 0.44 | |
| Reverse Current @ V_{RRM} | $T_A=25^\circ\text{C}$ | I_R | 50 | 100 | μA |
| | $T_A=125^\circ\text{C}$ | | 35 | 70 | mA |
| Typical Thermal Resistance | | $R_{\theta JC}$ | 4 | | $^\circ\text{C}/\text{W}$ |

20A, 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

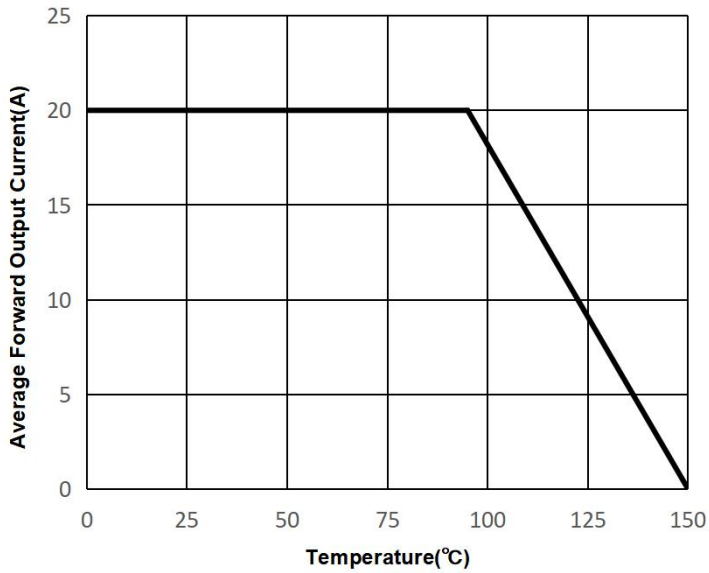


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

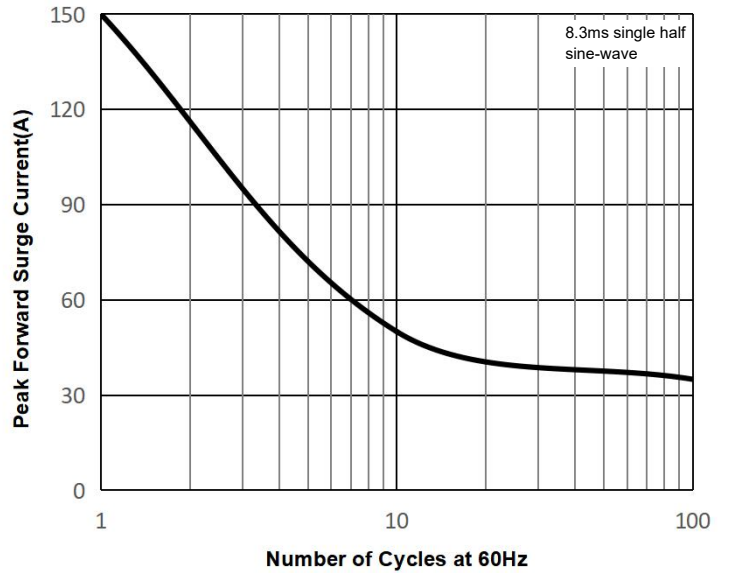


FIG.3: Typical Forward Characteristics

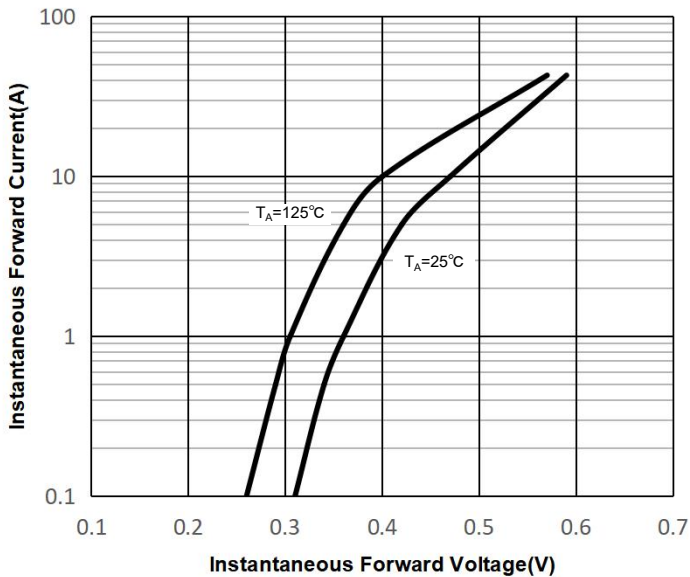
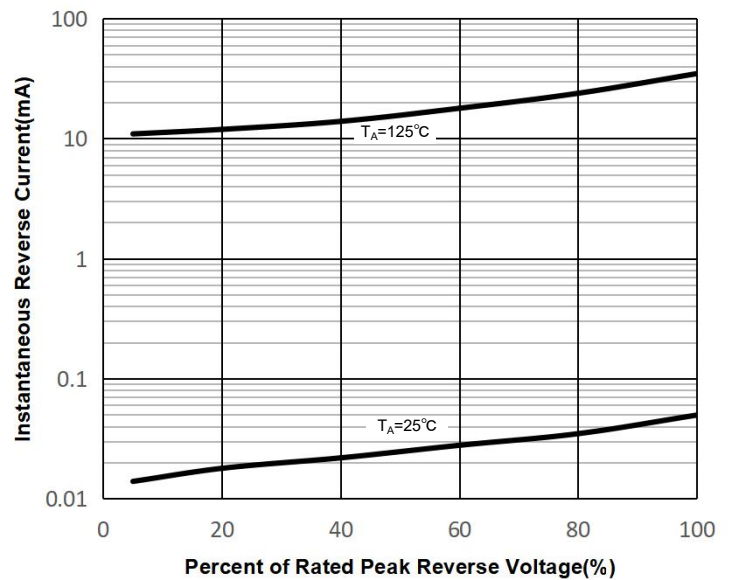


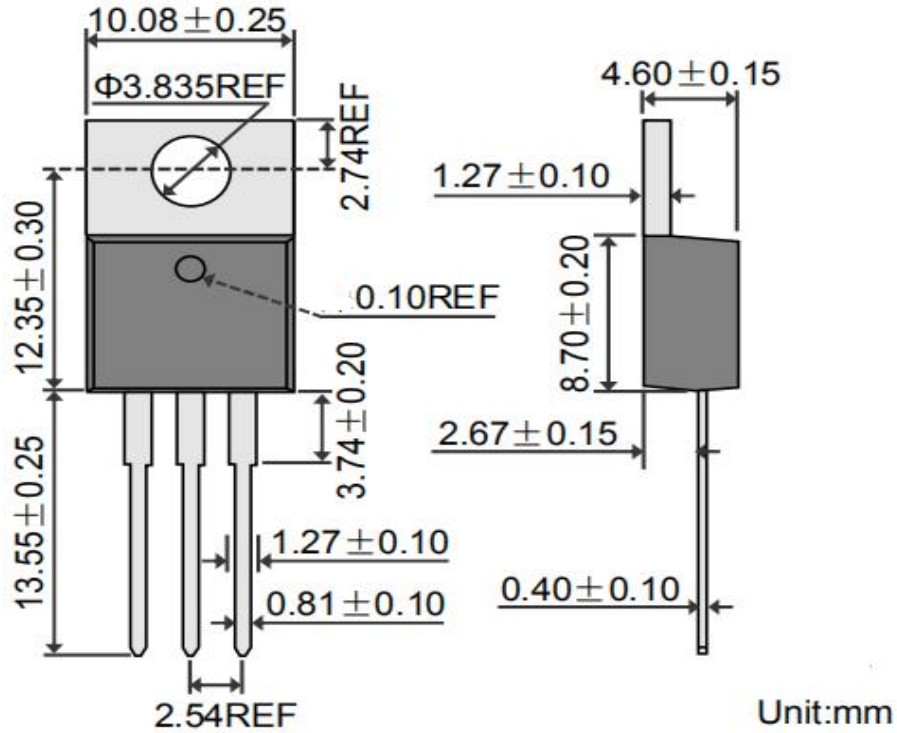
FIG.4: Typical Reverse Characteristics



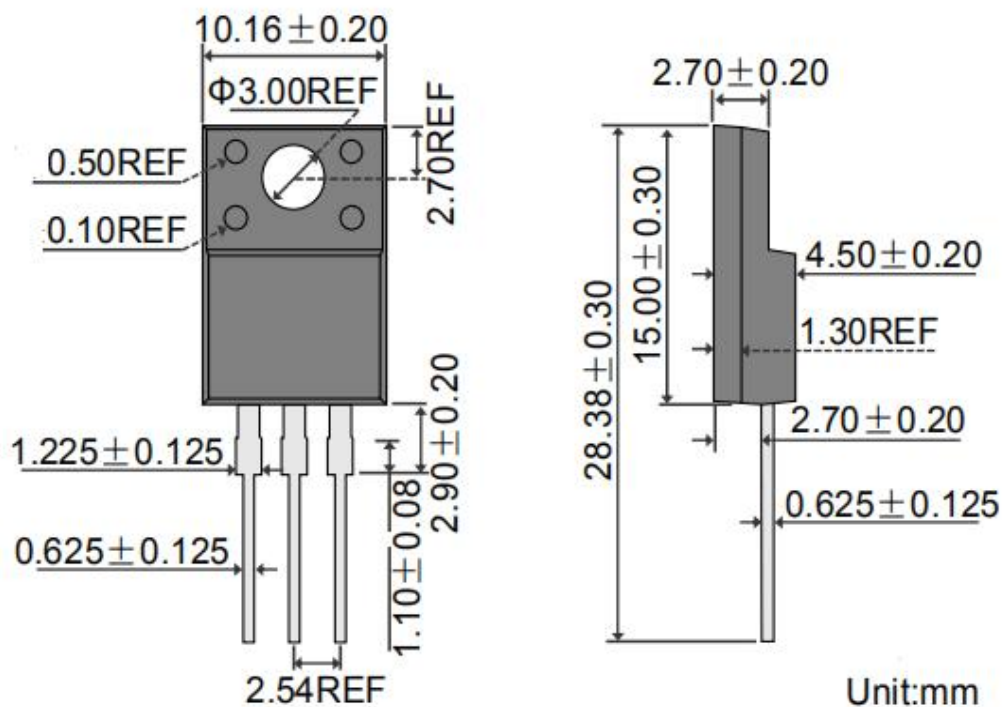
20A, 45V Low Forward Voltage Schottky Rectifiers

PACKAGE OUTLINE DIMENSIONS

TO-220AB

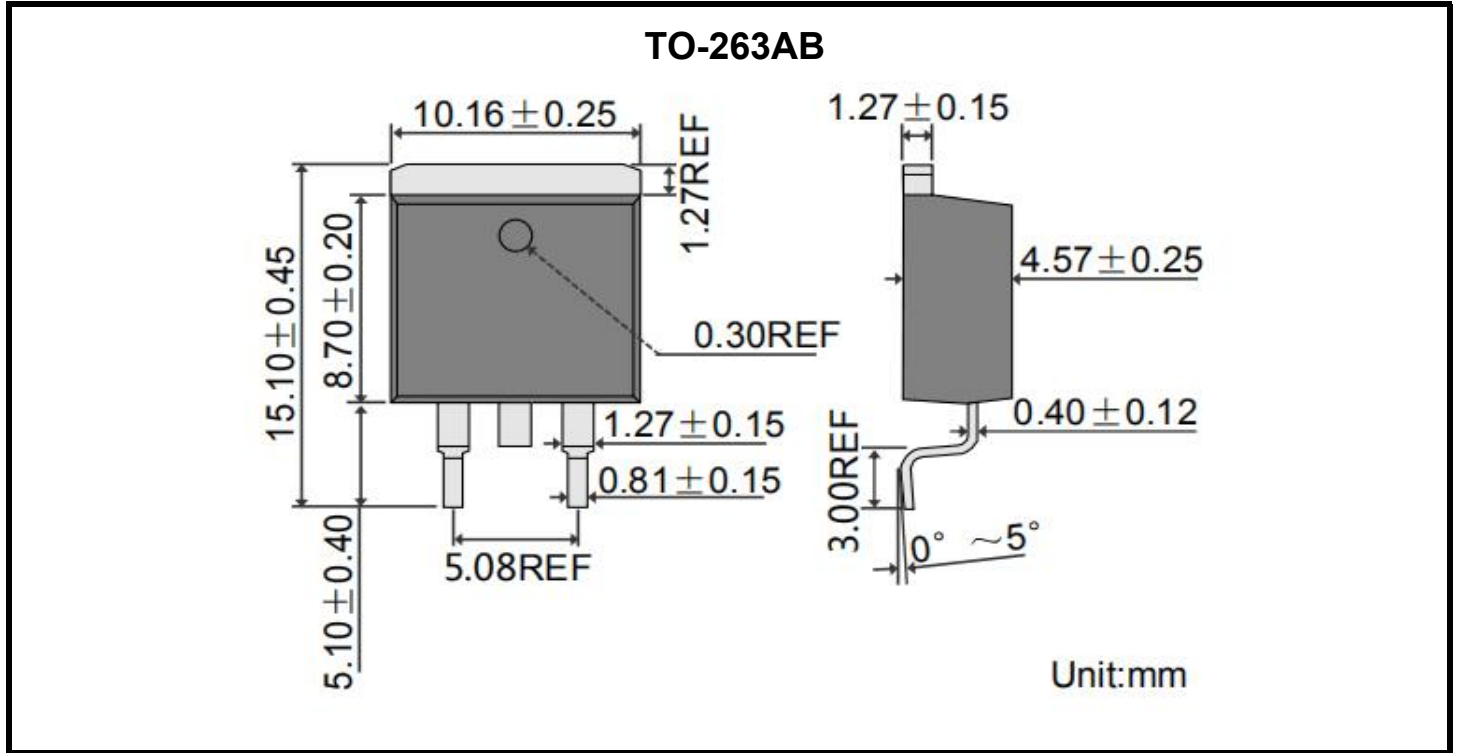


ITO-220AB



20A, 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 |