# STRN20100VCT

## Surface Mount Low $V_F$ Schottky Barrier Rectifier

| Voltage | 100 V | Current | 20 A |
|---|---|---|---|

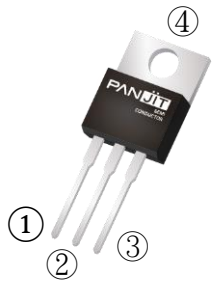
### Features

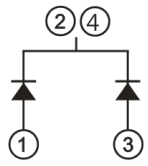
- Low forward voltage drop
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case : TO-220AB Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.8904 grams

**TO-220AB**




### Maximum Ratings and Thermal Characteristics ($T_A$ = 25 °C unless otherwise noted)

| PARAMETER | | SYMBOL | LIMIT | UNITS |
|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | 100 | V |
| Maximum RMS Voltage | | $V_{RMS}$ | 70 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 100 | V |
| Maximum Average Forward Current | per device<br>per diode | $I_{F(AV)}$ | 20<br>10 | A |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | | $I_{FSM}$ | 180 | A |
| Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R$ = 4 V | | $C_J$ | 750 | pF |
| Typical Thermal Resistance(Note 1) | | $R_{\theta JA}$<br>$R_{\theta JC}$<br>$R_{\theta JL}$ | 52<br>1<br>0.95 | °C/W |
| Operating Junction Temperature Range | | $T_J$ | -55~150 | °C |
| Storage Temperature Range | | $T_{STG}$ | -55~150 | °C |

NOTES : 1. Device mounted on a infinite heatsink.

# STRN20100VCT

## Electrical Characteristics ($T_A$ = 25 °C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$ = 1 A, $T_J$ = 25 °C | - | 0.41 | 0.46 | V |
| | | $I_F$ = 5 A, $T_J$ = 25 °C | - | 0.53 | 0.58 | |
| | | $I_F$ = 10 A, $T_J$ = 25 °C | - | 0.67 | 0.72 | |
| | | $I_F$ = 1 A, $T_J$ = 125 °C | - | 0.29 | 0.34 | |
| | | $I_F$ = 5 A, $T_J$ = 125 °C | - | 0.48 | 0.53 | |
| | | $I_F$ = 10 A, $T_J$ = 125 °C | - | 0.61 | 0.66 | |
| Reverse Current(Note 2) | $I_R$ | $V_R$ = 80 V, $T_J$ = 25 °C | - | 3 | 18 | uA |
| | | $V_R$ = 100 V, $T_J$ = 25 °C | - | 5 | 60 | |
| | | $V_R$ = 100V,$T_J$= 125 °C | - | 3.8 | 22.8 | mA |

NOTES : 2. Short duration pulse test used to minimize self-heating effect.

# STRN20100VCT

## TYPICAL CHARACTERISTIC CURVES

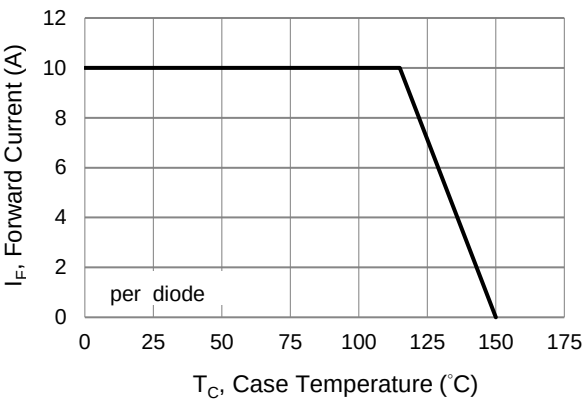



Fig.1 Forward Current Derating Curve

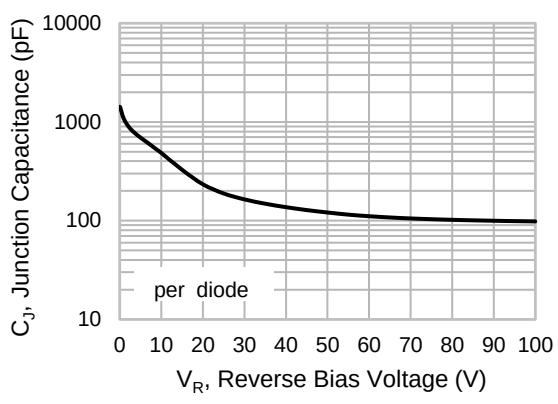



Fig.2 Typical Junction Capacitance

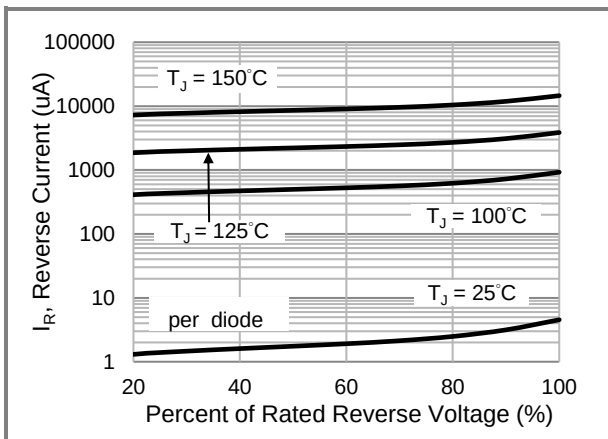



Fig.3 Typical Reverse Characteristics

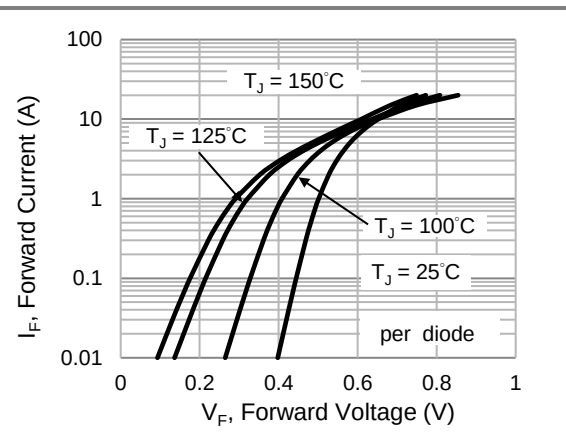


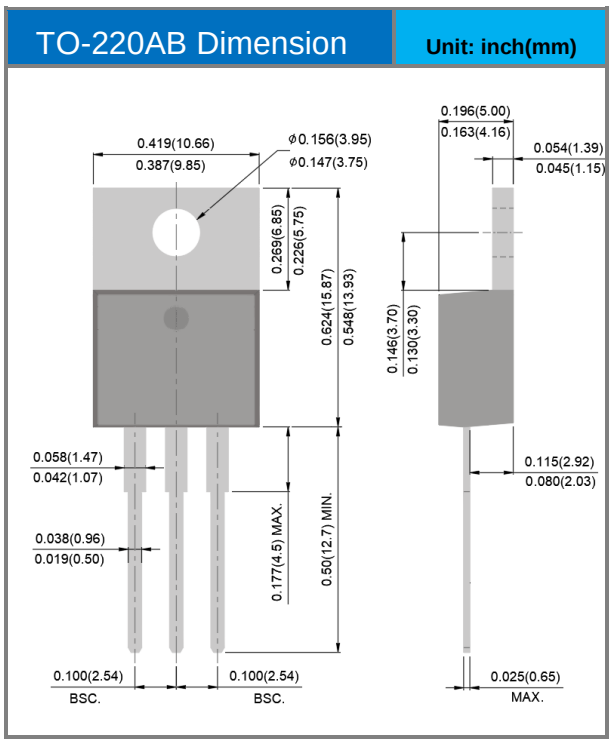

Fig.4 Typical Forward Characteristics

# STRN20100VCT

## Product and Packing Information

| Part No. | Package Type | Packing Type | Marking |
|---|---|---|---|
| STRN20100VCT | TO-220AB | 50pcs / Tube | TN20100VCT |

## Packaging Information



# STRN20100VCT

## Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.