

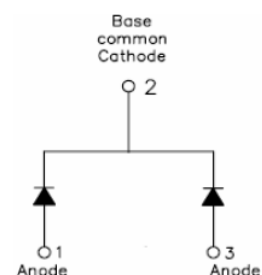
## SK10200C SCHOTTKY RECTIFIER

### Applications:

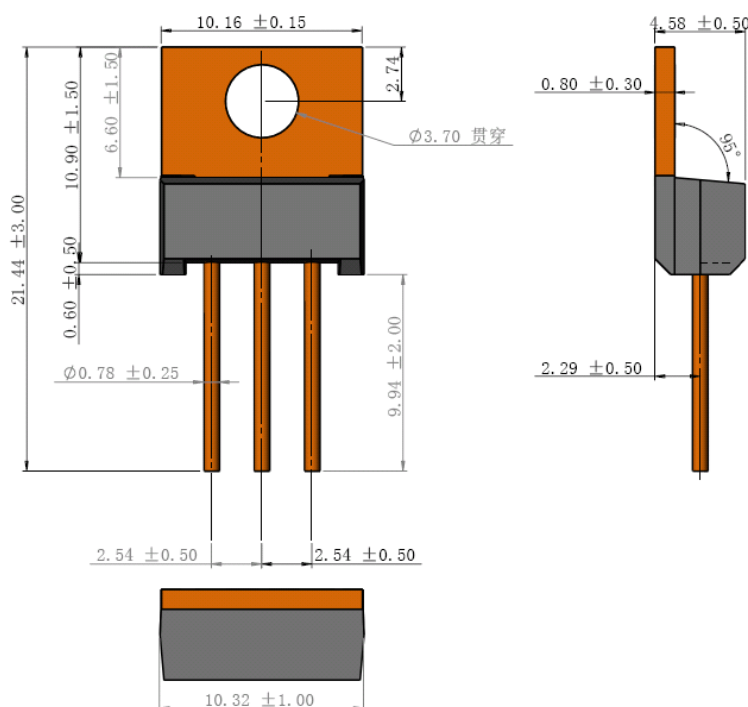
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### Features:

- 150°C TJ operation
- Center tap configuration
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



### Mechanical Dimensions (In mm):



### TO-220AB

## Marking Diagram:



Where XXXXX is YYWWL

|     |                          |
|-----|--------------------------|
| SK  | = Device Type            |
| 10  | = Forward Current (10A)  |
| 200 | = Reverse Voltage (200V) |
| C   | = Configuration          |
| SSG | = SSG                    |
| YY  | = Year                   |
| WW  | = Week                   |
| L   | = Lot Number             |

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

## Ordering Information:

| Device   | Package            | Shipping      |
|----------|--------------------|---------------|
| SK10200C | TO-220AB (Pb-Free) | 50 pcs / tube |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

## Maximum Ratings:

| Characteristics                                                  | Symbol      | Condition                                                             | Max. | Units |
|------------------------------------------------------------------|-------------|-----------------------------------------------------------------------|------|-------|
| Peak Inverse Voltage                                             | $V_{RWM}$   | -                                                                     | 200  | V     |
| Max. Average Forward                                             | $I_{F(AV)}$ | 50% duty cycle @ $T_C = 105^\circ\text{C}$ ,<br>rectangular wave form | 10   | A     |
| Max. Peak One Cycle<br>Non-Repetitive Surge Current<br>(per leg) | $I_{FSM}$   | 8.3 ms, half Sine pulse                                               | 128  | A     |

**Electrical Characteristics:**

\*

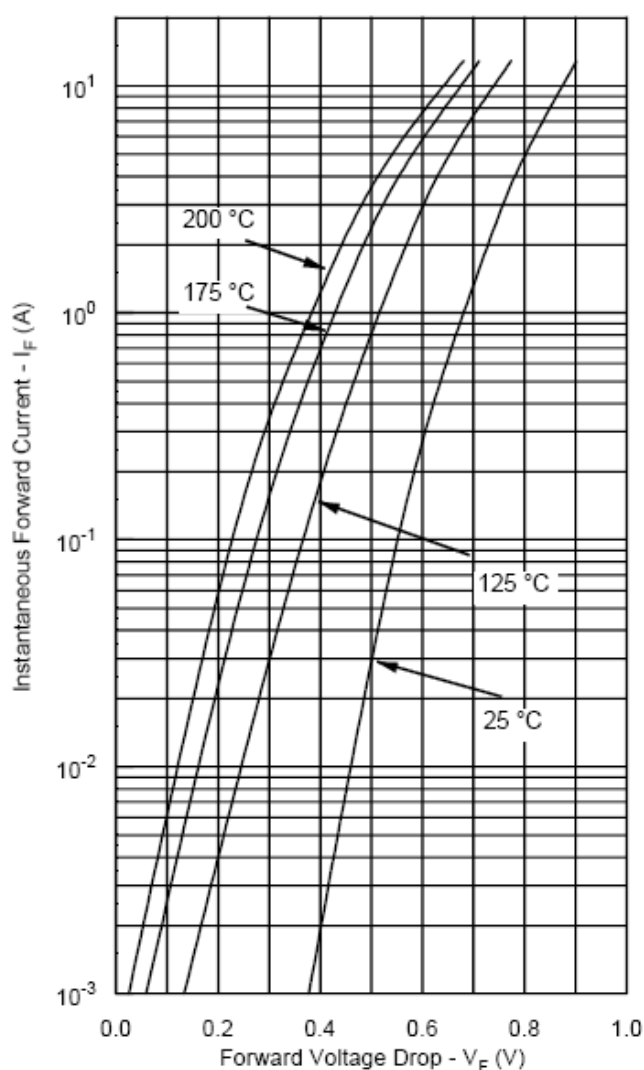
| Characteristics                       | Symbol   | Condition                                                                                  | Max.   | Units            |
|---------------------------------------|----------|--------------------------------------------------------------------------------------------|--------|------------------|
| Max. Forward Voltage Drop (per leg) * | $V_{F1}$ | @ 5A, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$                                            | 0.98   | V                |
|                                       | $V_{F2}$ | @ 5 A, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$                                          | 0.78   | V                |
| Max. Reverse Current (per leg) *      | $I_{R1}$ | @ $V_R = \text{rated } V_R$<br>$T_J = 25\text{ }^{\circ}\text{C}$                          | 1.00   | mA               |
|                                       | $I_{R2}$ | @ $V_R = \text{rated } V_R$<br>$T_J = 125\text{ }^{\circ}\text{C}$                         | 7.0    | mA               |
| Max. Junction Capacitance (per leg)   | $C_T$    | @ $V_R = 5\text{V}$ , $T_C = 25\text{ }^{\circ}\text{C}$<br>$f_{\text{SIG}} = 1\text{MHz}$ | 150    | pF               |
| Typical Series Inductance (per leg)   | $L_S$    | Measured lead to lead 5 mm from package body                                               | 8.0    | nH               |
| Max. Voltage Rate of Change           | $dv/dt$  | -                                                                                          | 10,000 | V/ $\mu\text{s}$ |

Pulse Width < 300 $\mu\text{s}$ , Duty Cycle <2%

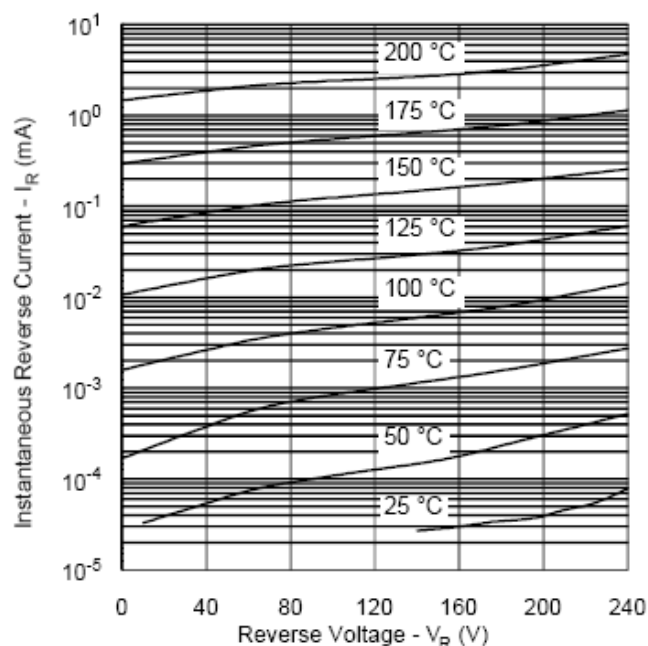
**Thermal-Mechanical Specifications:**

| Characteristics                                       | Symbol                | Condition    | Specification | Units                |
|-------------------------------------------------------|-----------------------|--------------|---------------|----------------------|
| Max. Junction Temperature                             | $T_J$                 | -            | -55 to +150   | $^{\circ}\text{C}$   |
| Max. Storage Temperature                              | $T_{\text{stg}}$      | -            | -55 to +150   | $^{\circ}\text{C}$   |
| Maximum Thermal Resistance Junction to Case (per leg) | $R_{\theta\text{JC}}$ | DC operation | 3.5           | $^{\circ}\text{C/W}$ |
| Approximate Weight                                    | wt                    | -            | 2             | g                    |
| Case Style                                            | TO-220AB              |              |               |                      |

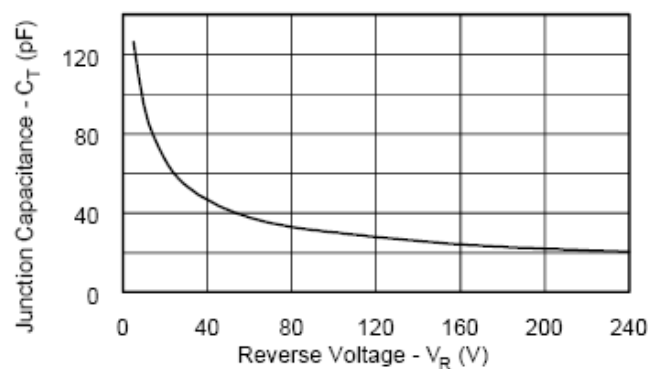
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**





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