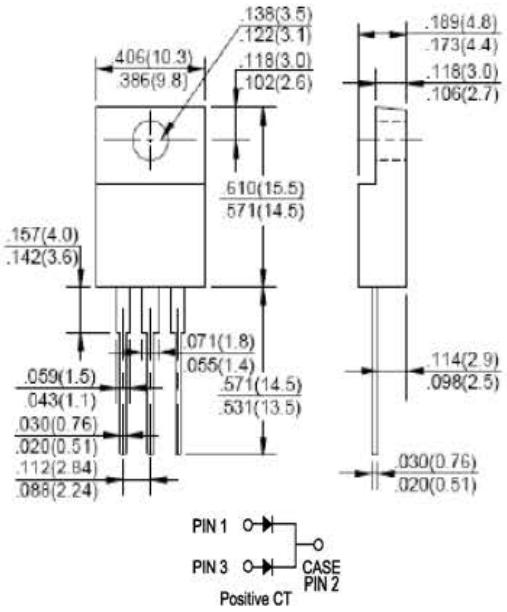
# SRF2040HCT

## Schottky Barrier Rectifier
**Reverse Voltage - 40 V**
**Forward Current - 20 A**

ITO-220




Dimensions in millimeters

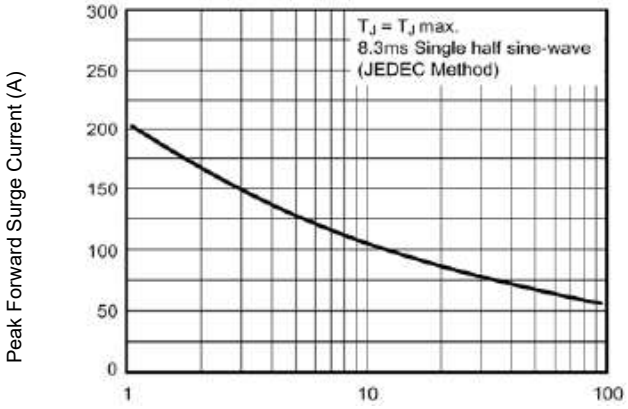
### Features
- Low power loss, High efficiency
- High capability
- High current capability
- High surge capacity

### Mechanical Data
- **Case:** ITO-220, molded plastic body
- **Terminals:** Solderable per MIL-STD-202, Method 208 guranteed
- **Polarity:** As marked
- **Mounting position:** Any

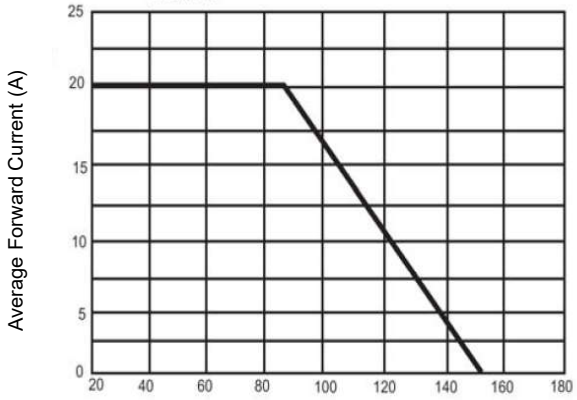
### Maximum Ratings and Characteristics
Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter | Symbols | SRF2040HCT | Units |
|---|---|---|---|
| | Marking | SRF2040HCT | - |
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 40 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 28 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 40 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 20 | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimpos on Rated Load(JEDEC method) | $I_{FSM}$ | 200 | A |
| Maximum Forward Voltage at $I_F$ = 10 A | $V_F$ | 0.52 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_C$ = 25℃<br>at $T_C$ = 100℃ | $I_R$ | 1<br>50 | mA |
| Typical Junction Capacitance [1] | $C_J$ | 315 | pF |
| Thermal Resistance - Junction to Case [2] | $R_{\theta JC}$ | 2 | ℃/W |
| Operating Junction and Storage Temperature Range | $T_j$, $T_{stg}$ | - 50 to + 150 | ℃ |

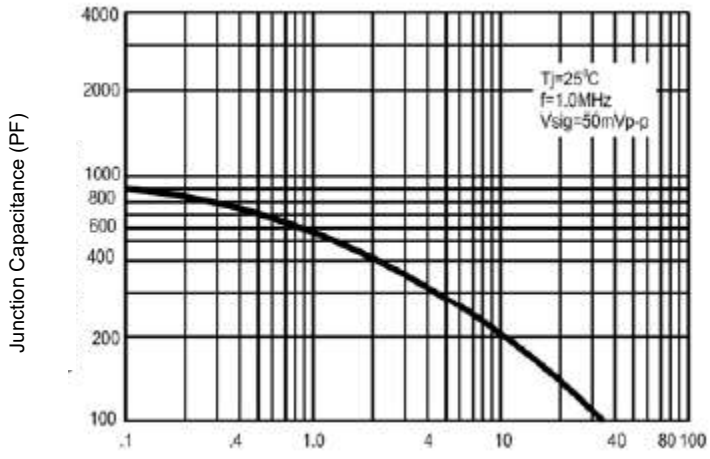
[1] Measured at 1 MHz and applied reverse voltage of 4.0 VDC
[2] Thermal Resistance from Junction to Case Per Leg



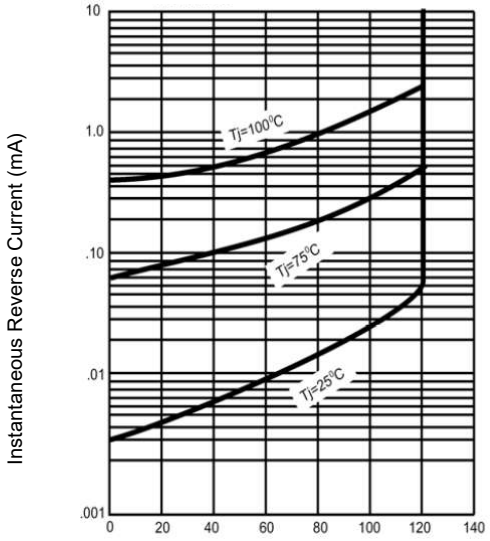

Number of Cycles at 60 Hz
Figure 1.Maximum Non Repetitive Peak Forward Surge Current Per Leg




Case Temperature (℃)
Figure 2. Maximum Forward Current Derating Curve




Reverse Voltage (V)
Figure 3.Typical Junction Capacitance Per Leg




Percent Of Rated Peak Reverse Voltage (%)
Figure 4.Typical Reverse Characteristics Per Leg