



## LOW FORWARD VOLTAGE SCHOTTKY BARRIER RECTIFIER

**SRFL2030C THRU SRFL2060C**

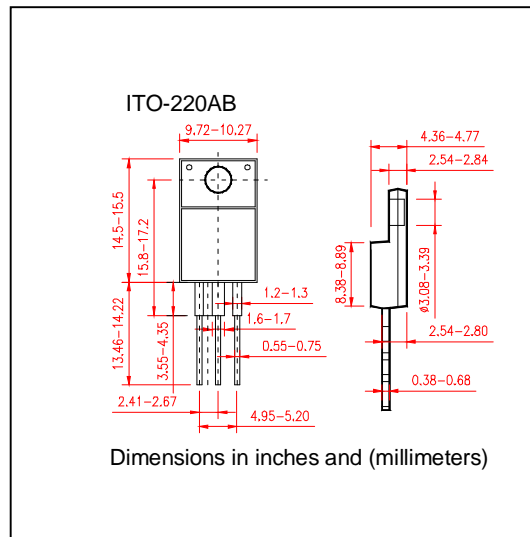
**VOLTAGE RANGE**      30 t o 60 Volts  
**CURRENT**              20.0 Amperes

### FEATURES

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High efficiency
- High Surge Capability
- High Current capacity and Low Forward Voltage Drop
- For use in low voltage high frequency inverters, Free wheeling, and polarity protection applications
- Plastic Material has UL Flammability Classification 94V-0

### MECHANICAL DATA

- Case: ITO-200AB molded plastic
- Terminals: Plated Lead solderable per MIL-STD-202 Method 208
- Polarity: As Marked on Body
- Weight: 2.24 grams (approx)
- Mounting Position: Any
- Marking: Type Number



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

|   | SYMBOLS             | SRFL 2030C    | SRFL 2035C | SRFL 2040C | SRFL 2045C | SRFL 2050C | SRFL 2060C | UNIT         |
|---|---------------------|---------------|------------|------------|------------|------------|------------|--------------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$           | 30            | 35         | 40         | 45         | 50         | 60         | V            |
| Working Peak Reverse Voltage  | $V_{RWM}$           |               |            |            |            |            |            |              |
| DC Blocking Voltage   | $V_R$               |               |            |            |            |            |            |              |
| RMS Reverse Voltage   | $V_{R(RMS)}$        | 21            | 25         | 28         | 32         | 35         | 42         | V            |
| Average Rectified Output Current (Note 1)@ $T_c=95^\circ C$   | $I_O$               | 20.0          |            |            |            |            |            | A            |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) | $I_{FSM}$           | 175           |            |            |            |            |            | A            |
| Forward Voltage Drop @ $I_F=10A, T_c=25^\circ C$  | $V_{FM}$            | 0.55          |            |            |            | 0.75       |            | V            |
| Peak Reverse Current at Rated DC Blocking Voltage   | $T_c = 25^\circ C$  | 1.0           |            |            |            |            |            | mA           |
|   | $T_c = 100^\circ C$ | 50            |            |            |            |            |            |              |
| Typical Junction Capacitance(Note2)   | $C_j$               | 650           |            |            |            |            |            | pF           |
| Typical Resistance Junction to case(Note1)  | $R_{\theta JC}$     | 2.8           |            |            |            |            |            | $^\circ C/W$ |
| Operating and Storage Temperature Range   | $T_j T_{STG}$       | (-55 to +150) |            |            |            |            |            | $^\circ C$   |

#### Notes:

1. Thermal Resistance Junction to case mounted on heatsink
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC



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VOLTAGE RANGE 30 to 60 Volts  
CURRENT 20.0 Ampere

## RATINGE AND CHARACTERISTIC CURVES SRFL2030C THRU SRFL2060C

FIG.1-FORWARD CURRENT DERATING CURVE

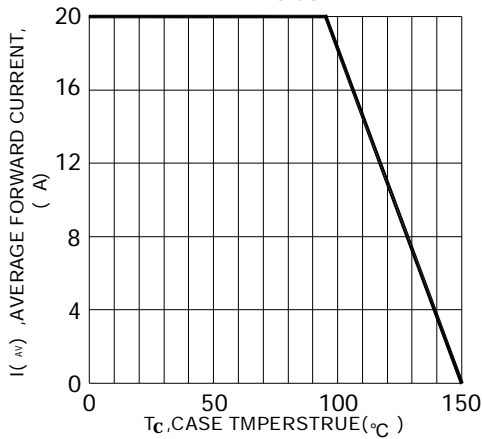


FIG.2-TYPICAL FORWARD CHARACTERISTICS

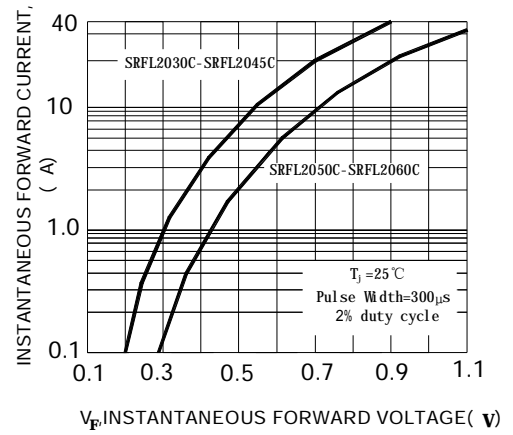


FIG.3 MAX NON-REPETITIVE SURGE CURRENT

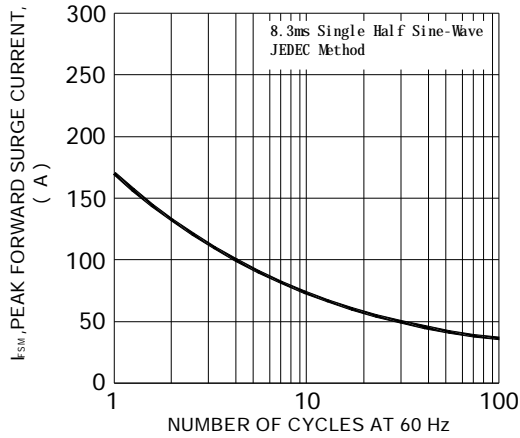


FIG4 TYPICAL JUNCTION CAPACITANCE PER ELEMENT

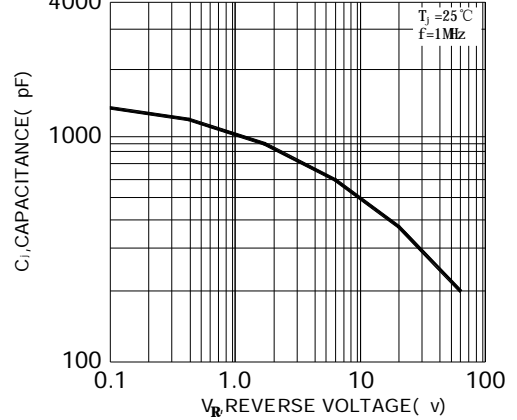


FIG.5-TYPICAL REVERSE CHARACTERISTICS

