Shantou Huashan Electronic Devices Co.,Ltd.

HKF20100CT

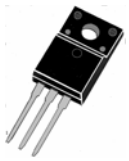
20A HIGH VOLTAGE SCHOTTKY BARREIER RECTIFIER

Features

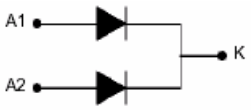
- **Schottky Barrier Chip**
- **Guard Ring Die Construction for Transient Protection**
- **Low Power Loss,High Efficiency**
- **High Surge Capability**
- **High Current Capability and Low Forward Voltage Drop**
- **For Use in Low Voltage,High Frequency Inverters,Free Wheelings, and Polarity Protection Applications**

Package

TO-220F



1—Pin A1
2—Pin K
3—Pin A2



Maximum Ratings

- **T_{stg}——Storage Temperature…… −65~150℃**
- **T_j——Operating Temperature …… −65~150℃**
- **V_{RRM}——Peak Repetitive Reverse Voltage……100V**
- **V_{RWM} —— Working Peak Reverse Voltage…… 100V**
- **V_R——DC Blocking Voltage……100V**
- **$V_{R(RMS)}$ ——RMS Reverse Voltage…… 70V**
- **$I_{F(AV)}$ ——Average Recified Output Current@T_c=125℃……Double Dies 20A**
  - **(Note 1) ……Single Die 10A**
- **I_{FSM}——Non-Repetitive Peak Forward Surge Current（Single Die，60Hz）……150A**

Electrical Chatacteristic@T_a=25℃unless otherwise specified

Single phase,half wave,60Hz,resistive or inductive load.

For capacitive load,derate current by 20%.

Characteristic	Symbol	Min	Max	Unit	Condition
Forward Voltage Drop	V_{FM}		0.75 0.85 0.85 1.02	V	I_F=10A,T_C=125℃ I_F=10A,T_C=25℃ I_F=10A,T_C=125℃ I_F=20A,T_C=25℃
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}		0.15 150	mA	V_R = V_{RRM} T_C=25℃ T_C=125℃
Typical Junction Capacitance(Note 2)	Cj		1000	pF	
Typical Thermal Resistance Junction to Case(Note 1)	R_{th-j}		4.0	℃/W	
Voltage Rate Of Change	dV/dt		10000	V/s	
Isolation Breakdown Voltage(heatsink to surface，t=3s	Viso		2000	V	

Notes:1、Thermal resistance junction to case mounted on heatsink.

2、Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.

PERFORMANCE CURVES

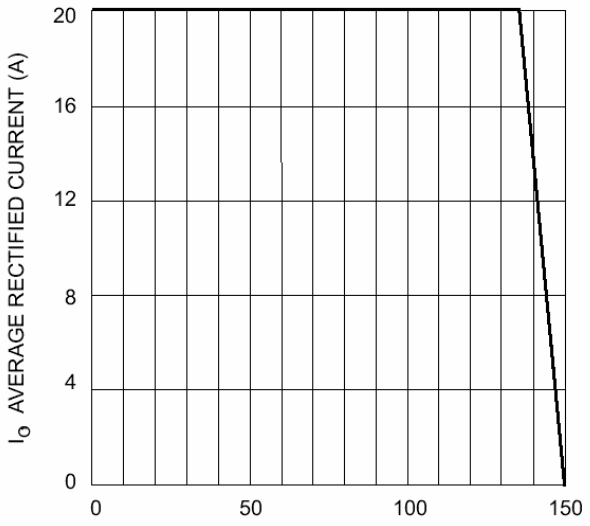


Fig. 1 Fwd Current Derating Curve

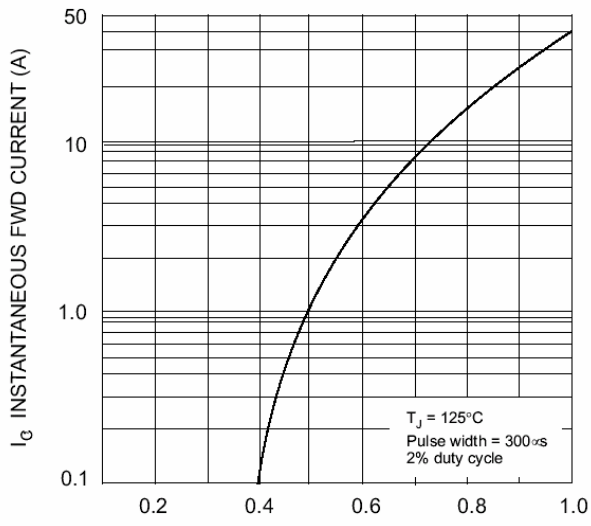


Fig. 2 Typical Forward Characteristics

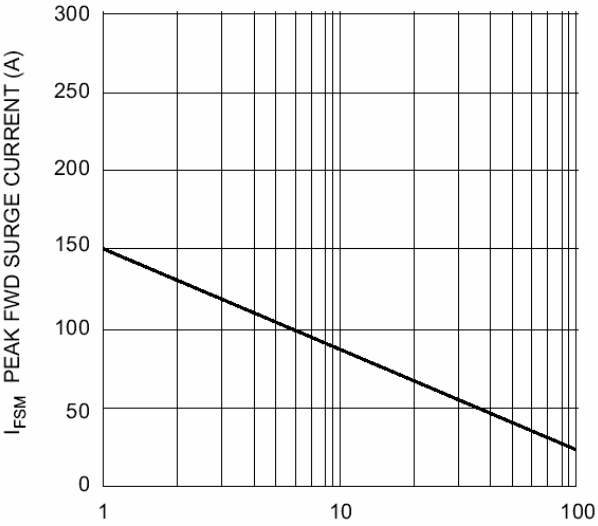


Fig. 3 Max Non-Repetitive Surge Current

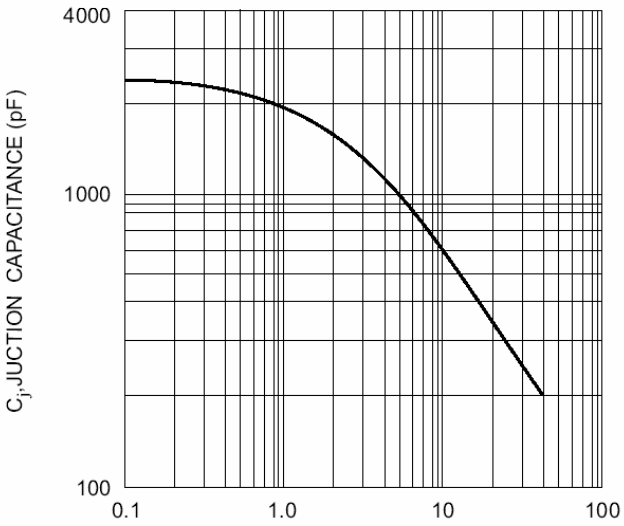


Fig. 4 Typical Junction Capacitance