Shantou Huashan Electronic Devices Co.,Ltd.

HKF10200CT

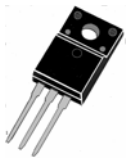
10A HIGH VOLTAGE SCHOTTKY BARREIER RECTIFIER

Features

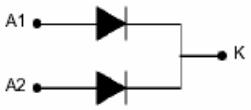
- **Schottky Barrier Chip**
- **Guard Ring Die Construction for Transient Protection**
- **Low Power Loss, High Efficiency**
- **High Surge Capability**
- **High Current Capability and Low Forward Voltage Drop**
- **For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection 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……200V**
- **V_{RWM} —— Working Peak Reverse Voltage…… 200V**
- **V_R——DC Blocking Voltage……200V**
- **$V_{R(RMS)}$ ——RMS Reverse Voltage…… 140V**
- **$I_{F(AV)}$——Average Rectified Output Current(T_c=125℃)……Double Dies 10A**
  - **(Note 1) ……Single Die 5A**
- **I_{FSM}——Non-Repetitive Peak Forward Surge Current（Single Die，60Hz）……120A**

Electrical Characteristics （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}		0.92 0.75 1.1 0.9	V	I_F=5A,T_C=25℃ I_F=5A,T_C=125℃ I_F=10A,T_C=25℃ I_F=10A,T_C=125℃
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}		0.2 40	mA	V_R = V_{RRM} T_C=25℃ T_C=125℃
Typical Junction Capacitance(Note 2)	Cj		300	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

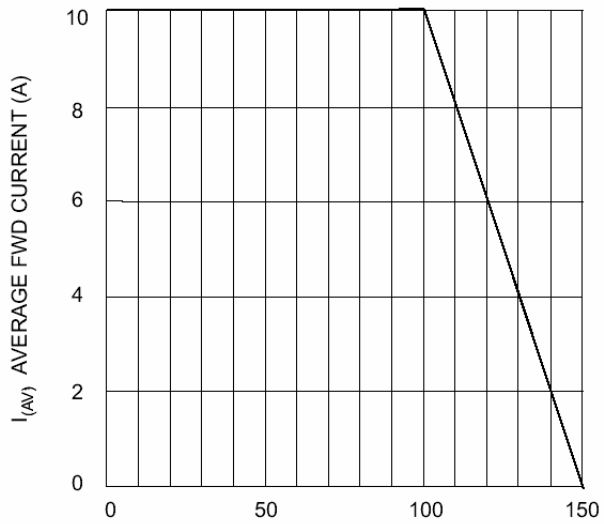


Fig. 1 Forward Current Derating Curve

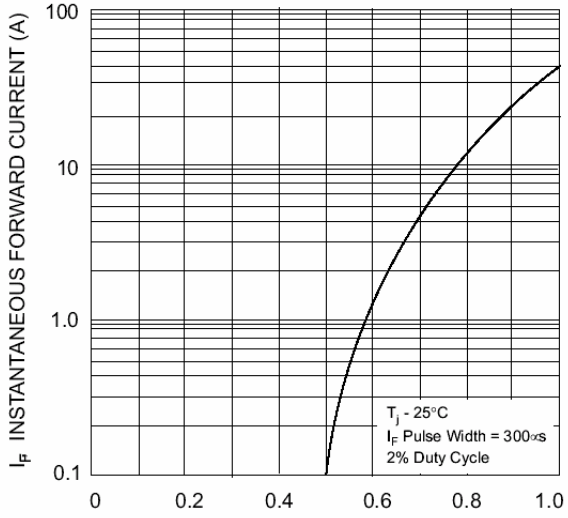


Fig. 2 Typical Forward Characteristics

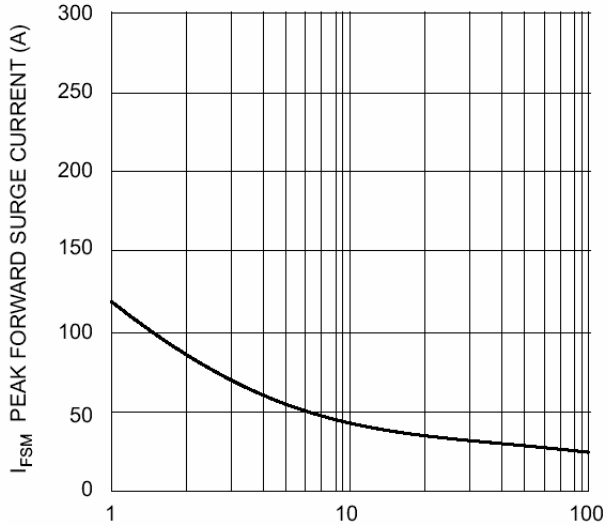


Fig. 3 Max Non-Repetitive Surge Current

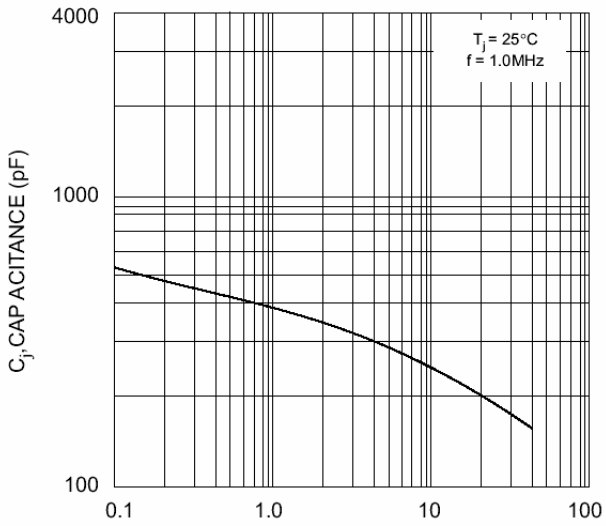


Fig. 4 Typical Junction Capacitance