Shantou Huashan Electronic Devices Co.,Ltd.

HKF20150CT

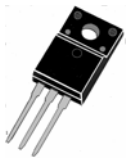
20A HIGH VOLTAGE SCHOTTKY BARREIER RECTIFIER

Features

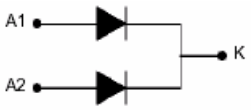
- **Schottky Barrier Chip**
- **Guard Ring Die Construction for Transient Protection**
- **Low Power Loss, High Efficiency**
- **High Surge Capability**
- **High Current Capability and Low Forward Voltage Drop**
- **For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection 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……150V**
- **V_{RWM} —— Working Peak Reverse Voltage…… 150V**
- **V_R——DC Blocking Voltage……150V**
- **$V_{R(RMS)}$ ——RMS Reverse Voltage…… 105V**
- **$I_{F(AV)}$——Average Rectified 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 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 1.02 0.85	V	I_F=10A,T_C=25℃ I_F=10A,T_C=125℃ I_F=20A,T_C=25℃ I_F=20A,T_C=125℃
Peak Reverse Current at Rated DC Blocking Voltage	I_{RM}		0.2 5	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

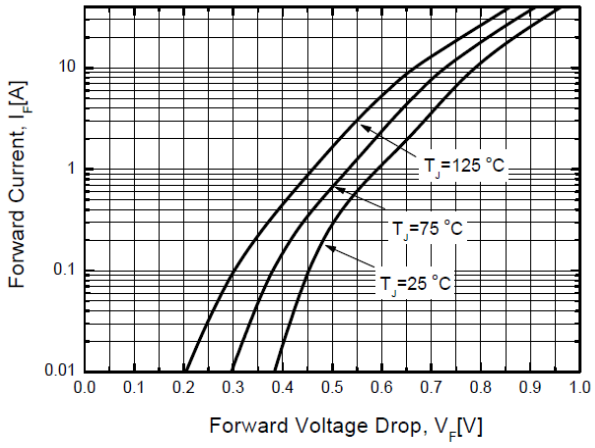


Figure 1. Forward Current Characteristics

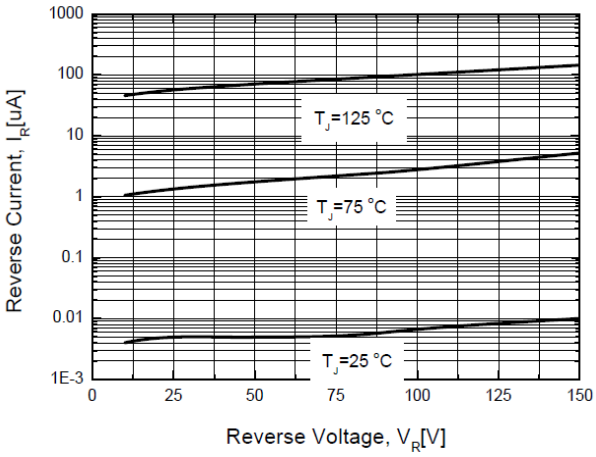


Figure 2. Reverrse Leakage Current

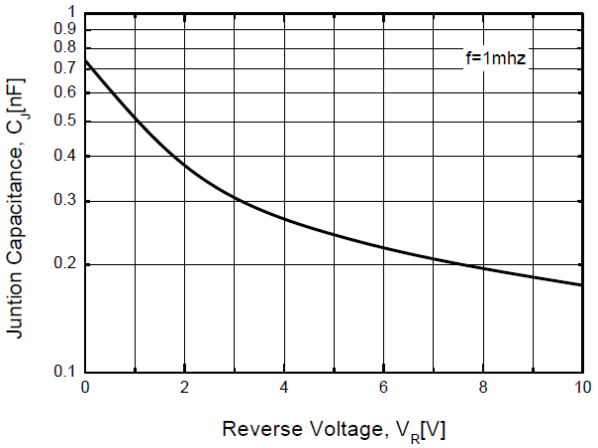


Figure 3. Junction Capacitance

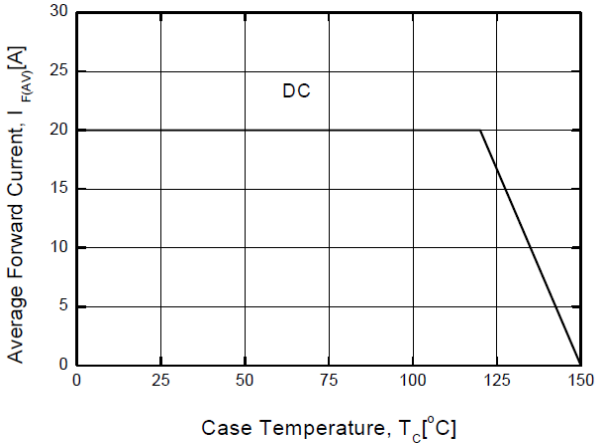


Figure 4. Power Derating