



Shantou Huashan Electronic Devices Co., Ltd.

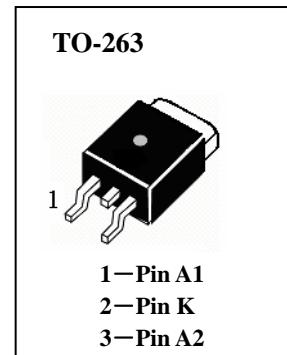
**HKW20100CT**

## 20A HIGH VOLTAGE SCHOTTKY BARREIER RECTIFIER

### ■ Features

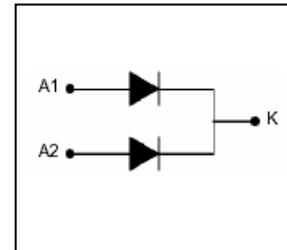
- 20 Amps Total (10 Amps Per Diode Leg)
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheelings, and Polarity Protection Applications

### ■ Package



### ■ Maximum Ratings

- $T_{stg}$  — Storage Temperature ..... -65~175°C
- $T_j$  — Operating Temperature ..... -65~175°C
- $V_{RRM}$  — 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 Rectified Output Current@ $T_c=125^\circ\text{C}$  ..... Double Dies 20A  
(Note 1) ..... Single Die 10A
- $I_{FSM}$  — Non-Repetitive Peak Forward Surge Current (Single Die, 60Hz) ..... 150A



### ■ Electrical Characteristic @ $T_a=25^\circ\text{C}$ 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	$I_F=10\text{A}, T_C=125^\circ\text{C}$ $I_F=10\text{A}, T_C=25^\circ\text{C}$ $I_F=20\text{A}, T_C=125^\circ\text{C}$ $I_F=20\text{A}, T_C=25^\circ\text{C}$
Peak Reverse Current at Rated DC Blocking Voltage	$I_{RM}$		0.15 150	mA	$V_R = V_{RRM} \quad T_C=25^\circ\text{C}$ $T_C=125^\circ\text{C}$
Typical Junction Capacitance(Note 2)	$C_J$		1000	pF	
Typical Thermal Resistance Junction to Case(Note 1)	$R_{th-j}$		1.6	°C/W	
Voltage Rate Of Change	$dV/dt$		10000	V/s	

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

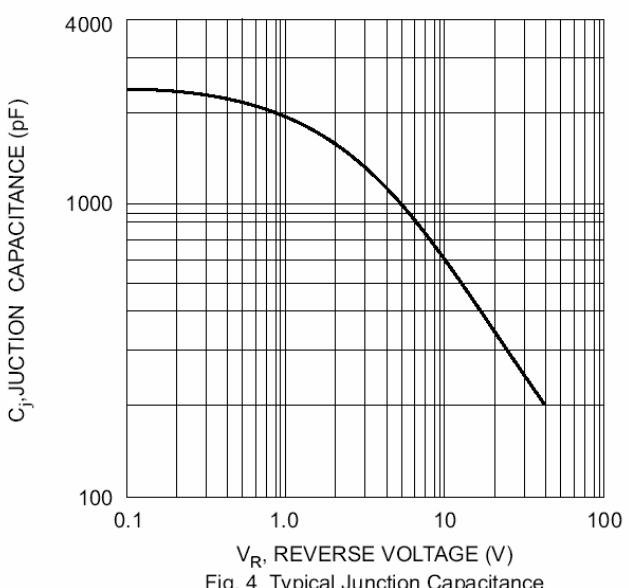
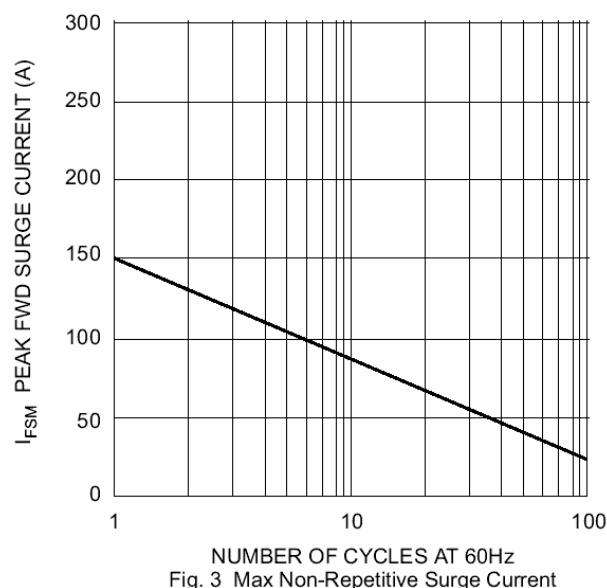
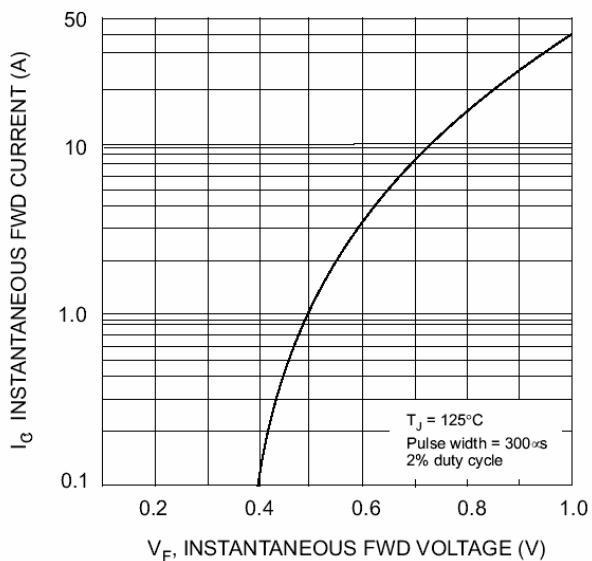
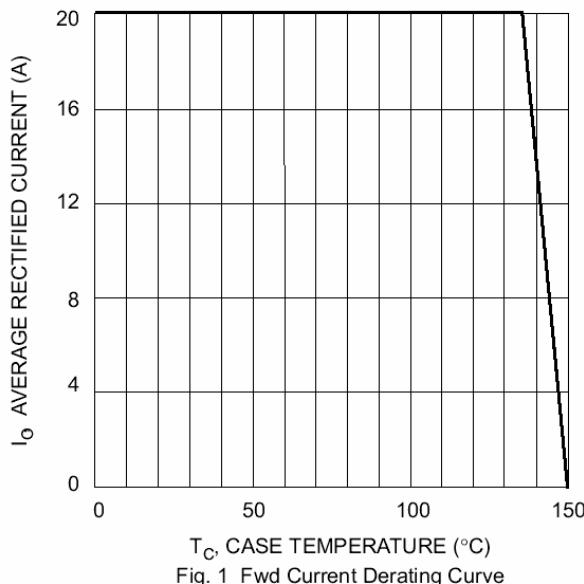
2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.



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## ■ PERFORMANCE CURVES





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## ■ Package Dimensions

