



3300V / 10A SiC Schottky Diode

HWDS10HCS330U

Features

- Temperature independent fast switching
- Low reverse leakage current
- Low Vf at high temperatures
- Easy paralleling (positive temperature coefficient of Vf)
- High repetitive surge current



Benefits

- Replace bipolar with unipolar rectifiers
- Essentially no switching losses
- Higher efficiency
- Reduction of heat sink requirements
- Parallel devices without thermal runaway

Applications

- Switch mode power supplies (SMPS)
- Power factor correction
- Motor drives
- Electric vehicles and battery chargers
- Solar inverters
- Free wheeling diode

Part Number	Package	Marking
HWDS10HCS330U	TO-247-HS-2L	HUIWEI



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Electrical Characteristics(Tj=25°C)

Symbol	Parameter	Value			Unit	TestConditions	Note
		Min.	Typ.	Max.			
Vf	Forward Voltage		1.8		V	If=10A, Tj=25°C	Fig.1
						If=10A, Tj=175°C	
Ir	Reverse Current		1		μA	Vr=3300V, Tj=25°C	Fig.2
						Vr=3300V, Tj=175°C	
Qc	Total Capacitive Charge		146		nC	Vr=3300V, Tj=25°C	Fig.3
C	Total Capacitance		1153		pF	Vr=0V, Tj=25°C,f=1MHz	Fig.4
			122			Vr=100V, Tj=25°C,f=1MHz	
			35			Vr=3300V, Tj=25°C,f=1MHz	
Ec	Capacitance Stored Energy		148		μJ	Vr=3300V	Fig.5

Typical Performance

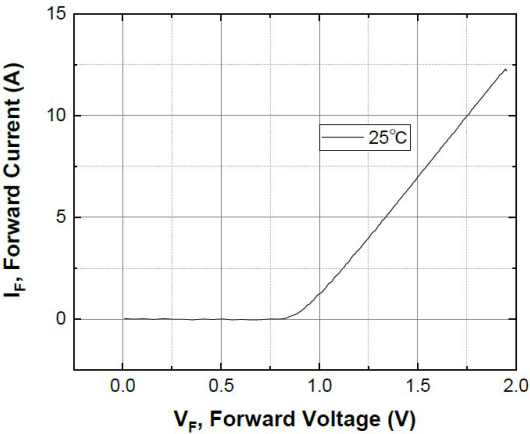


Figure 1. Forward Characteristics

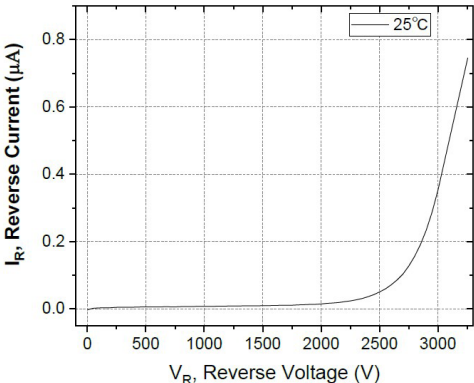


Figure 2. Reverse Characteristics



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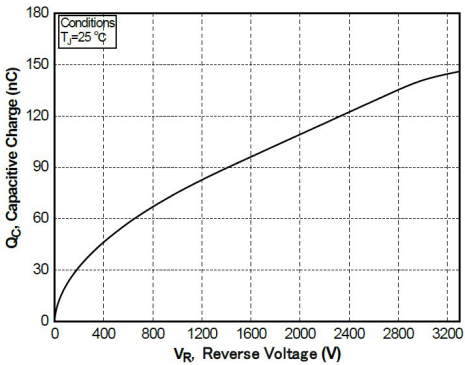


Figure 3. Capacitance Charge Vs. Reverse Voltage

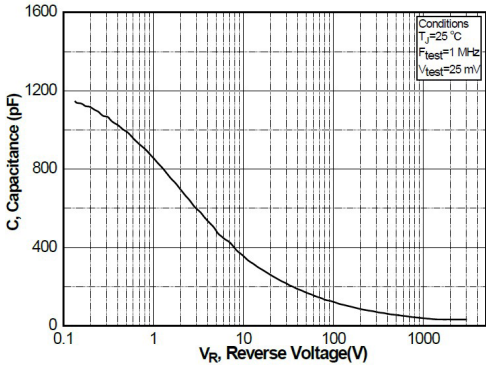


Figure 4. Capacitance Vs. Reverse Voltage

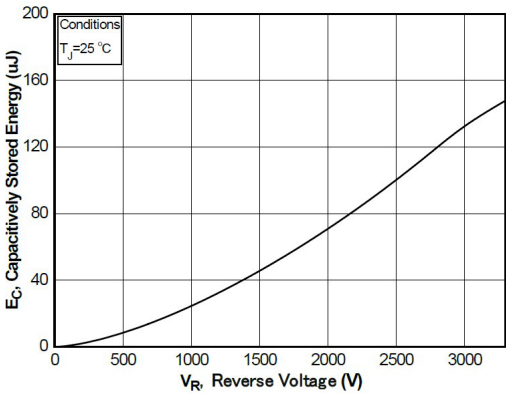


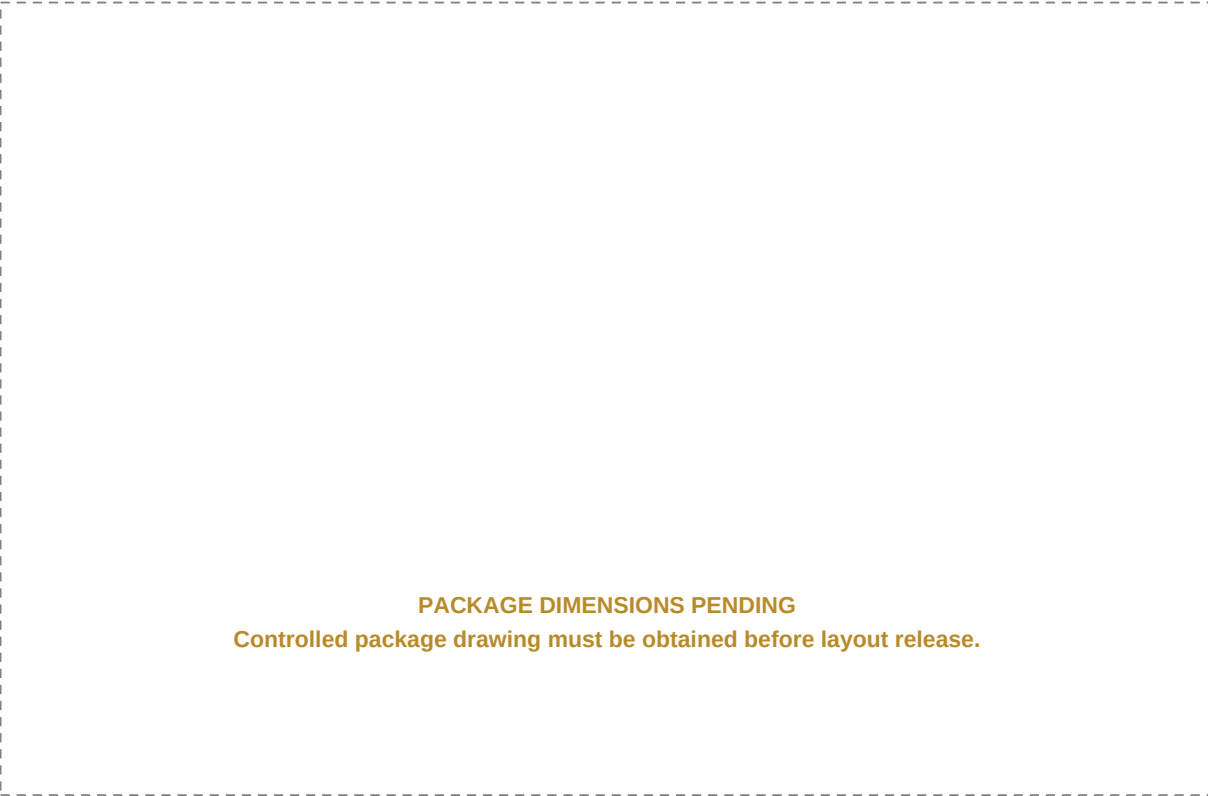
Figure 5. Capacitance Stored Energy



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Package Dimensions - TO-247-HS-2L





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- We assume no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all Silicon products described or contained herein.
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