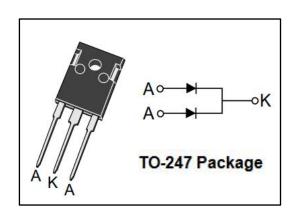


# **Schottky Barrier Rectifier**

## STPS60SM200CW

#### **FEATURES**

- · Plastic material used carriers Unerwriter Laboratory
- Metal silicon rectifier, majorty carrier conduction
- Low Power Loss, High Efficiency
- Guard ring for transient protection
- · High Surge Capability, High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



#### **APPLICATIONS**

• For use in low voltage ,high frequency inverters,free wheeling and polarity protection applications.

## ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
I <sub>F(RMS)</sub>	Forward current RMS	50	Α
I <sub>F(AV)</sub>	Average Rectified Forward Current @Tc=150℃	60	А
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	500	А
I <sub>RRM</sub>	Peak Repetitive Reverse Surge Current (20 µ s, 1.0kHz)	1.0	А
TJ	Junction Temperature	-40~150	$^{\circ}$ C
T <sub>stg</sub>	Storage Temperature Range	-65~150	${\mathbb C}$



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#### THERMAL CHARACTERISTICS

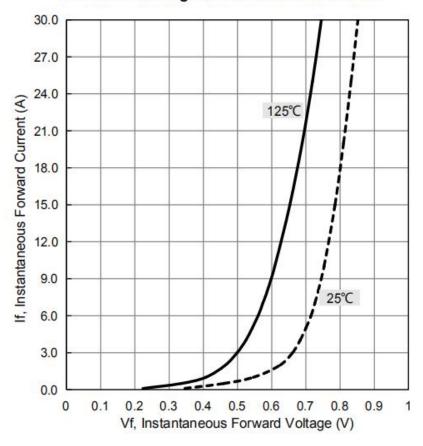
SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance,Junction to Case	0.5	°C/W

#### **ELECTRICAL CHARACTERISTICS** (Pulse Test: Pulse Width=300 µ s,Duty Cycle≤1%)

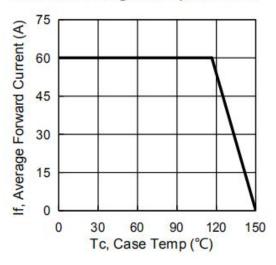
SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
VF	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 30A ; Tc= 25 ℃	0.90	V
		I <sub>F</sub> = 30A ; Tc= 125℃	0.85	
I <sub>R</sub>	Maximum Instantaneous Reverse Current	V <sub>R</sub> = V <sub>RWM;</sub> Tc= 25 °C	0.05	mA
		V <sub>R</sub> = V <sub>RWM;</sub> Tc= 125°C	13.0	

#### **Characteristic Curves**

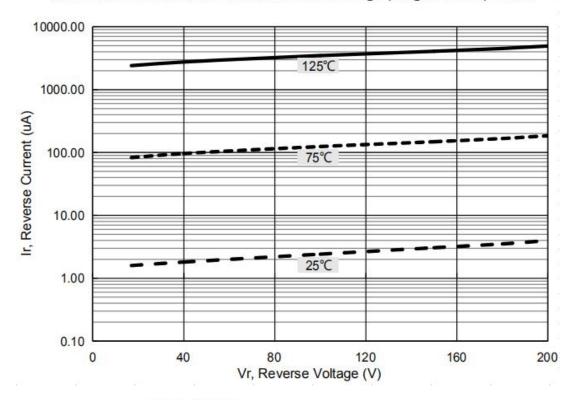
## The forward voltage and forward current curve

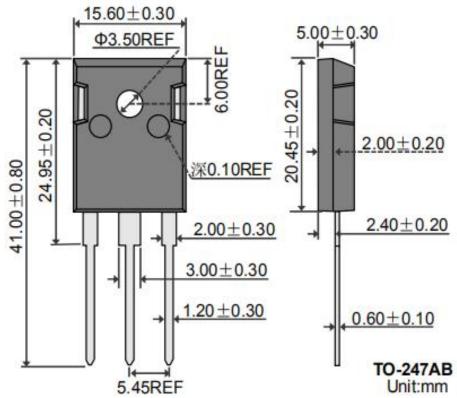


## Current derating curve, perelement



## The reverse leak current and the reverse voltage (single-device) curve.







## Schottky Barrier Rectifier

STPS60SM200C

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