

Schottky Barrier Rectifier

S30SC4MT

FEATURES

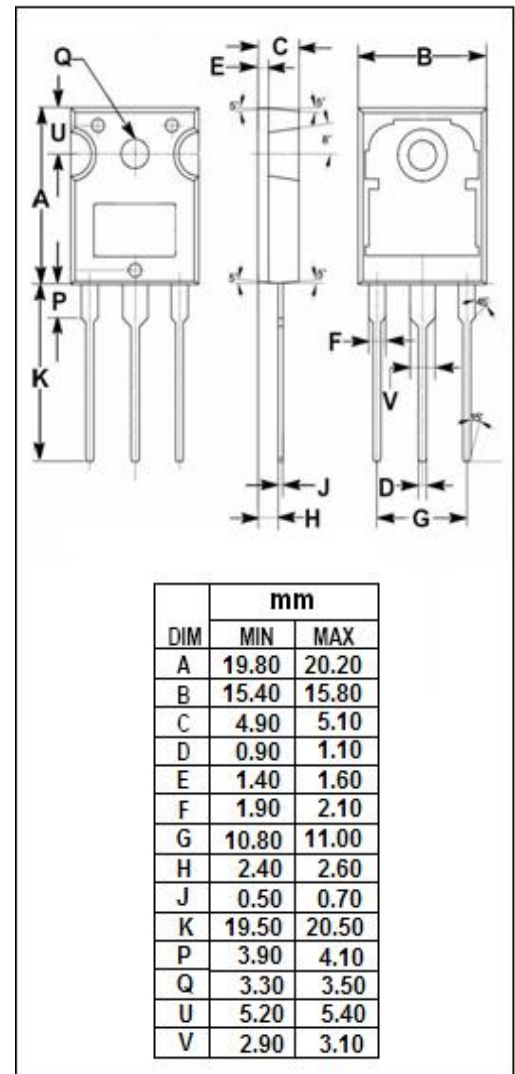
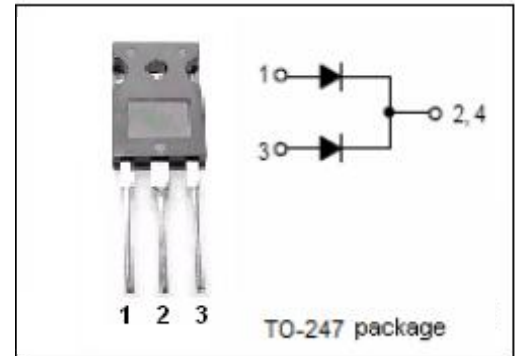
- With TO-247 packaging
- Low leakage current, low power loss, high efficiency
- High frequency operation
- High surge capability
- Low stored charge majority carrier conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- High frequency inverters
- Freewheeling diodes
- Reverse battery protection
- Polarity protection applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak Repetitive Reverse Voltage	45	V
V_{RMS}	RMS Voltage	40	
V_R	DC Blocking Voltage	45	
$I_{F(AV)}$	Average Rectified Forward Current@ $T_c=132^{\circ}\text{C}$	30	A
I_{FSM}	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions)	300	A
T_J	Junction Temperature	-50~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-50~175	$^{\circ}\text{C}$



Schottky Barrier Rectifier**S30SC4MT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.8	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 15A ; T_c = 25^{\circ}C$	0.55	V
I_R	Maximum Instantaneous Reverse Current	$V_R = \text{rated } V_{RRM}$	1.5	mA

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