

# Schottky Barrier Rectifier

# 30CTQ100S

## FEATURES

- Low forward voltage drop
- Low Power Loss,high Efficiency
- Guard ring for overvoltage protection
- High Surge Capability,High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

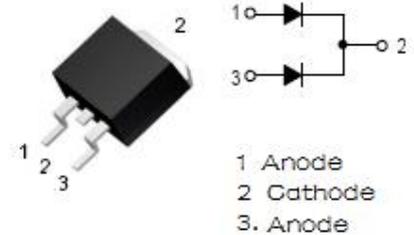
## APPLICATIONS

- For use inswitching power supplies, converters, free-wheeling diodes, and reverse battery protection.

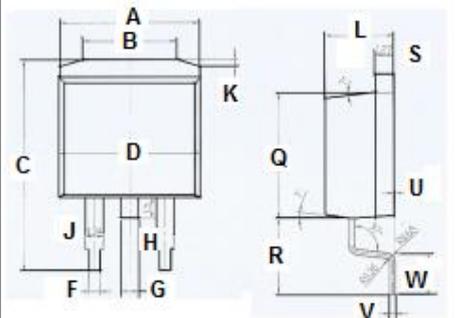
## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	30	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current	275	A
T <sub>J</sub>	Junction Temperature	-55~175	°C
T <sub>stg</sub>	Storage Temperature Range	-55~175	°C
dv/dt	Voltage Rate of Change (Rated V <sub>R</sub> )	10000	V/μs

## D2PAK



## TO-263 Package



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

**Schottky Barrier Rectifier**
**30CTQ100S**
**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.63	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> = 15A ; T <sub>C</sub> = 25°C	0.86	V
		I <sub>F</sub> = 15A ; T <sub>C</sub> = 125°C	0.67	
I <sub>R</sub>	Maximum Instantaneous Reverse Current	V <sub>R</sub> = V <sub>RRM</sub> ; T <sub>C</sub> = 25°C	0.55	mA
		V <sub>R</sub> = V <sub>RRM</sub> ; T <sub>C</sub> = 125°C	7	

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