

Schottky Rectifier

30CTQ050

FEATURES

- High frequency operation
- Low forward voltage drop

APPLICATIONS

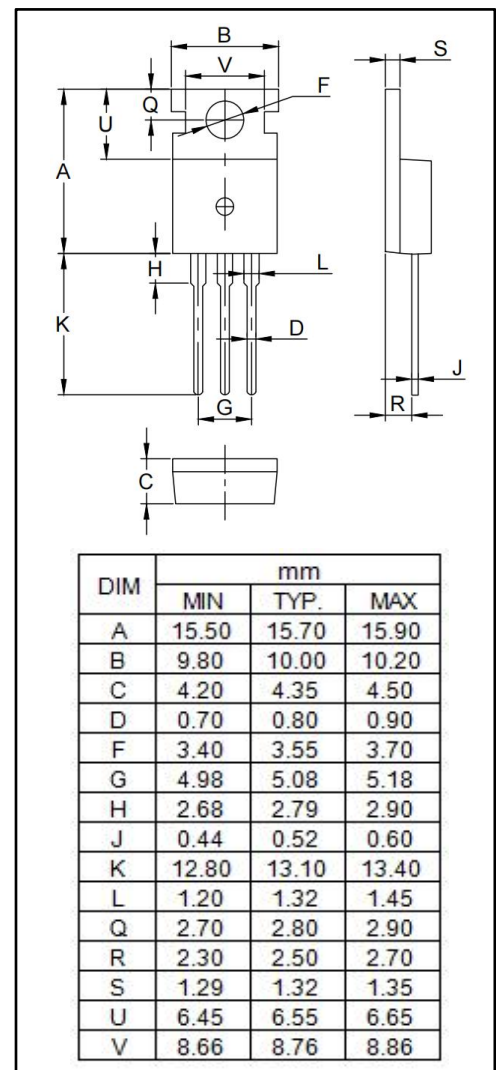
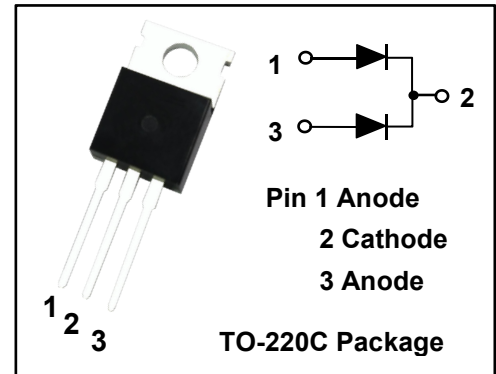
- Converters
- Switching power
- Freewheeling diodes, and reverse battery protection

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak Repetitive Reverse Voltage	50	V
$I_{F(AV)}$	Average Rectified Forward Current 50 % duty cycle at $T_c = 105^{\circ}\text{C}$	2*15	A
I_{FSM}	Non-repetitive Peak Surge Current $t_p = 5 \mu\text{s}$ sine	1000	A
T_j	Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case per diode	1.63	$^{\circ}\text{C}/\text{W}$



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ELECTRICAL CHARACTERISTICS($T_J = 25^\circ\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 15\text{A}, T_J = 25^\circ\text{C}$	0.62	V
		$I_F = 30\text{A}, T_J = 25^\circ\text{C}$	0.76	
		$I_F = 15\text{A}, T_J = 125^\circ\text{C}$	0.56	
		$I_F = 30\text{A}, T_J = 125^\circ\text{C}$	0.71	
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}$	0.8	mA
		$V_R = V_{RWM}, T_J = 125^\circ\text{C}$	45	

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