

Ultrafast Soft Recovery Diode

30ETH12

FEATURES

- Hyperfast recovery time
- Low forward voltage drop
- Low leakage current

APPLICATIONS

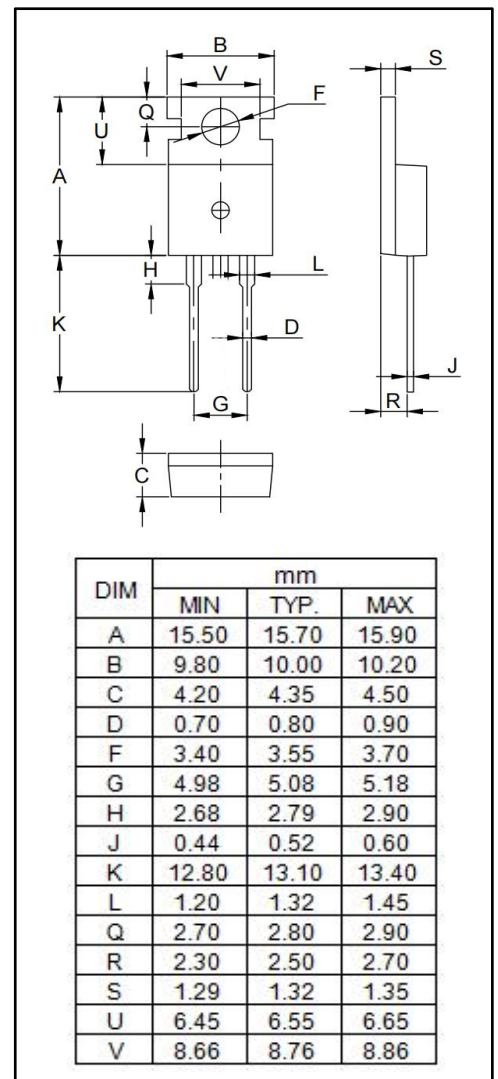
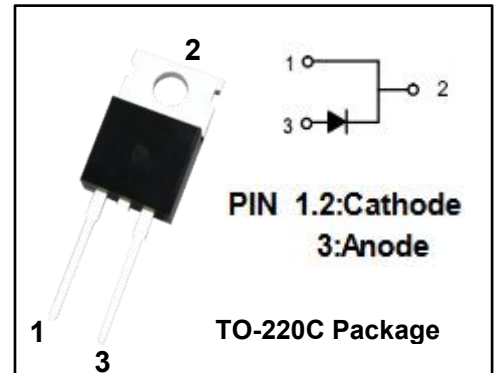
- Power supplies and conversion systems
- Motor drives

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak Repetitive Reverse Voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current $T_c = 116^{\circ}\text{C}$	30	A
I_{FSM}	Non-repetitive Peak Surge Current	280	A
T_J	Junction Temperature	-55~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

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



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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 30\text{A}$, $T_J = 25^{\circ}\text{C}$	2.35	V
		$I_F = 30\text{A}$, $T_J = 150^{\circ}\text{C}$	1.5	
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}$	10	uA
		$V_R = V_{RWM}$, $T_J = 150^{\circ}\text{C}$	500	
t_{rr}	Maximum Reverse Recovery Time 	$I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$	60	ns

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