

## Soft Fast Recovery Diode

30EPF12

## FEATURES

- Ultrafast recovery time
- Low forward voltage drop

## APPLICATIONS

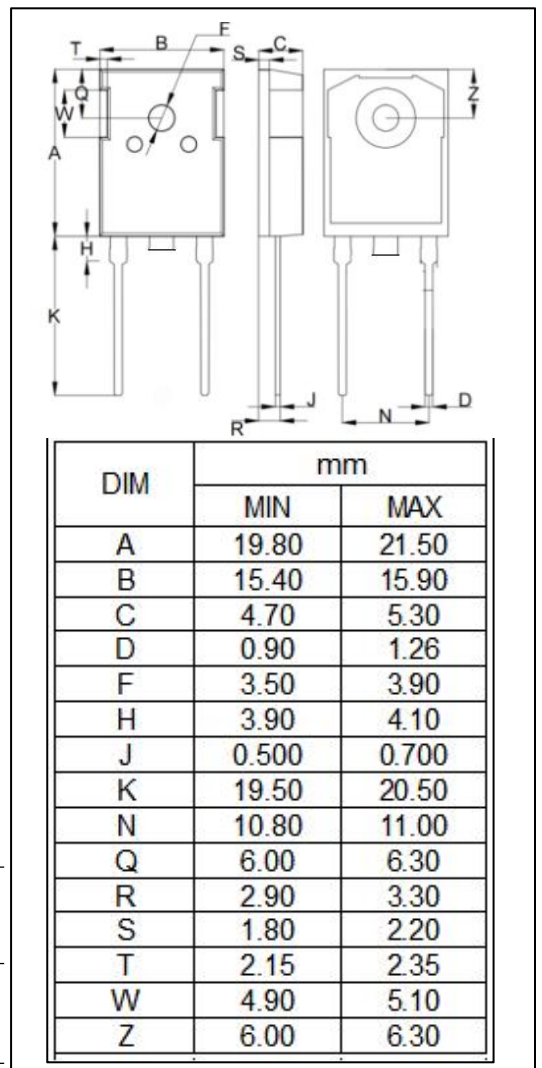
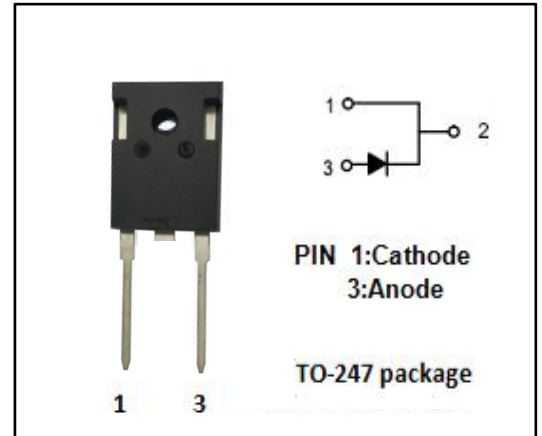
- Input rectifications where severe restrictions on conducted EMI should be met
- Output rectification and freewheeling in inverters, choppers and converters

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	30	A
$I_{FSM}$	Non-repetitive Peak Surge Current 10 ms sine pulse, no voltage reapplied	350	A
$T_J$	Junction Temperature	-40~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-40~150	$^{\circ}\text{C}$

## THERMAL CHARACTERISTICS

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



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

SYMBOL	PARAMETER	CONDITIONS	VALUES	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F = 30\text{A}$ , $T_J = 25^{\circ}\text{C}$	1.41	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}$	0.1	mA
		$V_R = V_{RWM}$ , $T_J = 150^{\circ}\text{C}$	6.0	
$t_{rr}$	Maximum Reverse Recovery Time	$I_F = 30\text{A}$ , $25\text{ A}/\mu\text{s}$	450	ns

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