

**Soft Fast Recovery Diode**
**30EPF12**
**FEATURES**

- Ultrafast recovery time
- Low forward voltage drop

**APPLICATIONS**

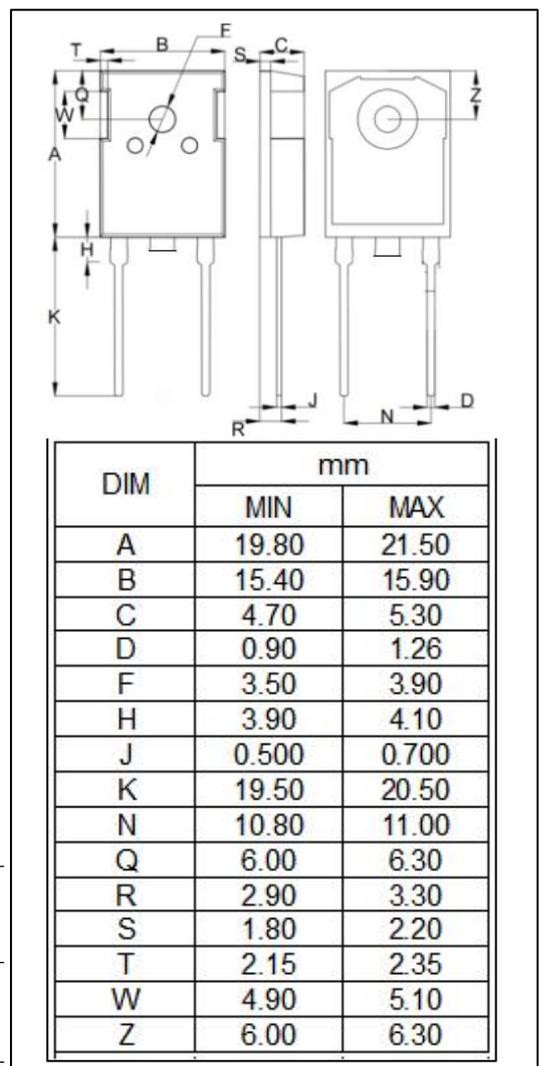
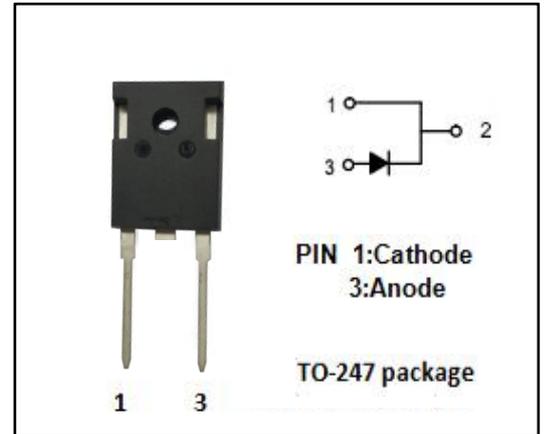
- Input rectifications where severe restrictions on conducted EMI should be met
- Output rectification and freewheeling in inverters, choppers and converters

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	1200	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	30	A
I <sub>FSM</sub>	Non-repetitive Peak Surge Current 10 ms sine pulse, no voltage reapplied	350	A
T <sub>J</sub>	Junction Temperature	-40~150	°C
T <sub>stg</sub>	Storage Temperature Range	-40~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.8	°C/W



## Soft Fast Recovery Diode

30EPF12

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

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


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