

Ultra-fast Rectifier

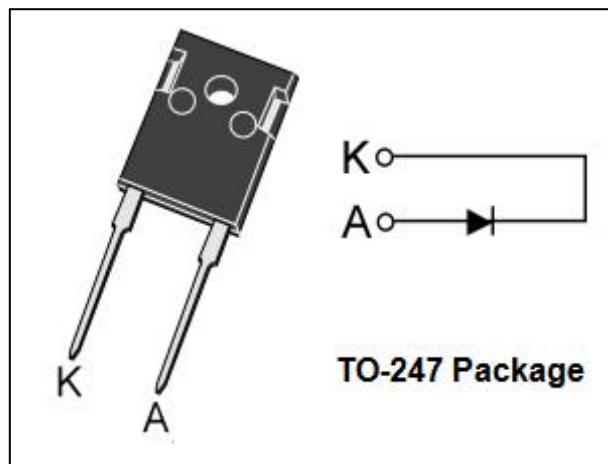
DUR60120W

FEATURES

- 1200V blocking voltage
- Very short recovery time
- Soft recovery behaviour
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Anti-parallel diode for high frequency switching devices
- Anti-saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current	60	A
I_{FSM}	Nonrepetitive Peak Surge Current@ 45°C (Surge applied at rated load conditions half-wave, single phase, 60Hz)	280	A
T_J	Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

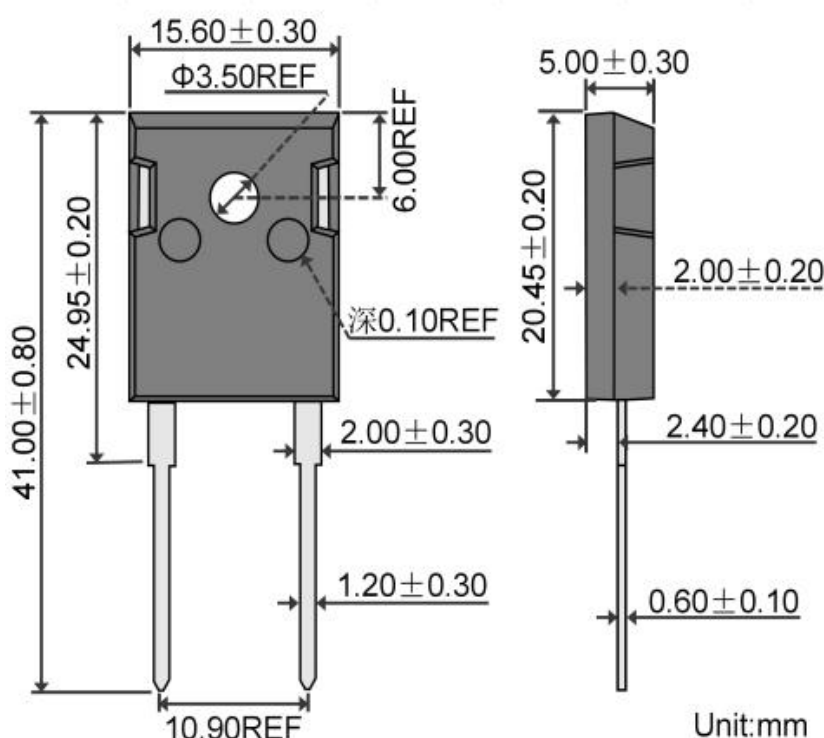
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.65	$^{\circ}\text{C/W}$

Fast Recovery Rectifier

DUR60120W

ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$) (Pulse Test: Pulse Width=300 μs , Duty Cycle $\leq 2\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F^*	Maximum Instantaneous Forward Voltage	$I_F=60\text{A}$; $T_j=25^\circ\text{C}$	3.5	V
I_R^*	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}$; $T_j=25^\circ\text{C}$ $V_R=V_{RWM}$; $T_j=125^\circ\text{C}$	0.65 8.0	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{REC}=0.25\text{A}$	100	ns

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