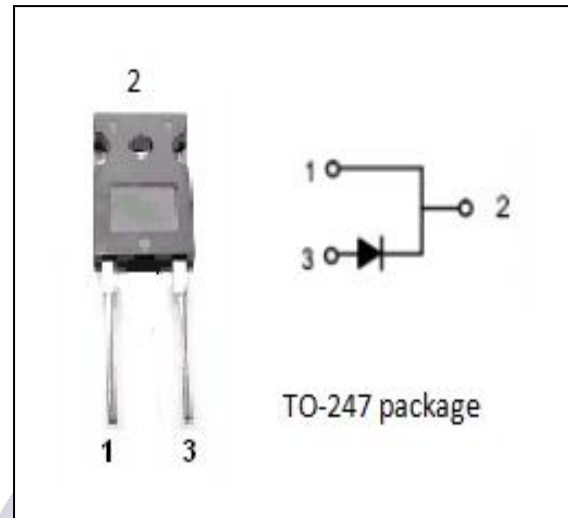


Ultra fast Rectifier
DSEP60-12AR
FEATURES

- With TO-247 packaging
- High performance fast recovery diode
- Low loss and soft recovery
- Low forward voltage drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose


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 @ $T_c=90^\circ\text{C}$	70	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase)@ $T_c=45^\circ\text{C}$	500	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	190	W
T_J	Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

Ultra fast Rectifier

DSEP60-12AR**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.28	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	35	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=70A ; T_j=25^{\circ}C$ $I_F=70A ; T_j=150^{\circ}C$	1.8 1.5	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}C$ $V_R=V_{RWM}; T_j=150^{\circ}C$	0.65 2.5	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=1A; -diF/dt=300A/\mu s; V_R=30V$	40	ns

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