

Ultra fast Rectifier

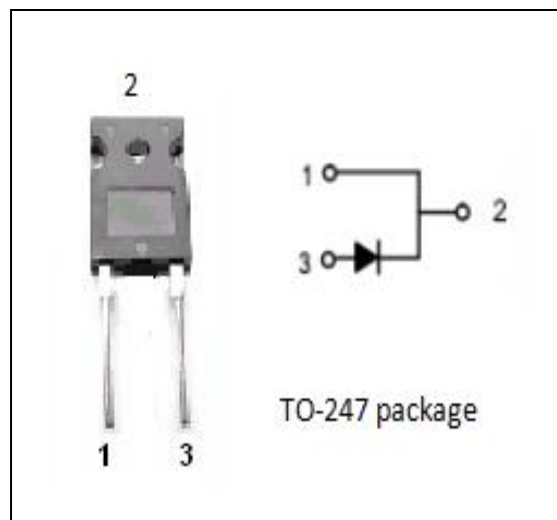
DSEI60-06A

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°C)

SYMBOL	PARAMETER		VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		600	V
I _{F(AV)}	Average Rectified Forward Current @T _c =70°C		60	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase)@T _c =45°C	50HZ 60HZ	550 600	A
P _D	Total Dissipation @T _c =25°C		166	W
T _J	Junction Temperature		-40~150	°C
T _{stg}	Storage Temperature Range		-40~150	°C

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.75	°C/W
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	35	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=70\text{A}; T_j=25^{\circ}\text{C}$ $I_F=70\text{A}; T_j=150^{\circ}\text{C}$	1.8 1.5	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=0.8*V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=0.8*V_{RWM}; T_j=125^{\circ}\text{C}$	200 100 14	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}; -di_F/dt=200\text{A}/\mu\text{s}; V_R=30\text{V}$	50	ns

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