

Ultra fast Rectifier

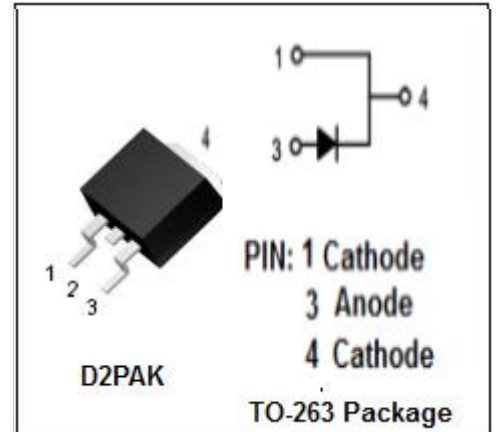
ISL9R1560S3ST

FEATURES

- With TO-263(DPAK) packaging
- Low forward voltage drop
- Super high speed switching
- High reliability by planer design
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

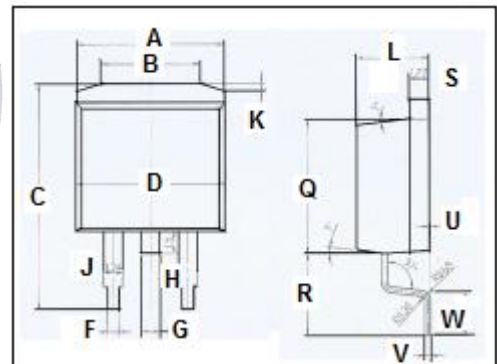
APPLICATIONS

- Switching power supply
- Power switching circuits
- High speed power switching



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
IF(AV)	Average Rectified Forward Current @T _c =100°C; Square Wave; Duty=1/2	15	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	200	A
TJ	Junction Temperature	-55~175	°C
Tstg	Storage Temperature Range	-55~175	°C



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

Ultra fast Rectifier**ISL9R1560S3ST****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.2	°C/W

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	$I_F=15\text{A}; T_c=25^\circ\text{C}$ $I_F=15\text{A}; T_c=125^\circ\text{C}$	2.2 2.0	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_c=25^\circ\text{C}$ $V_R=V_{RWM}; T_c=125^\circ\text{C}$	0.1 1.0	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.15\text{A}; di/dt=100\text{A}/\mu\text{s}; V_R=30\text{V}$	40s	ns

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