

Ultra fast Rectifier

UGS5J

FEATURES

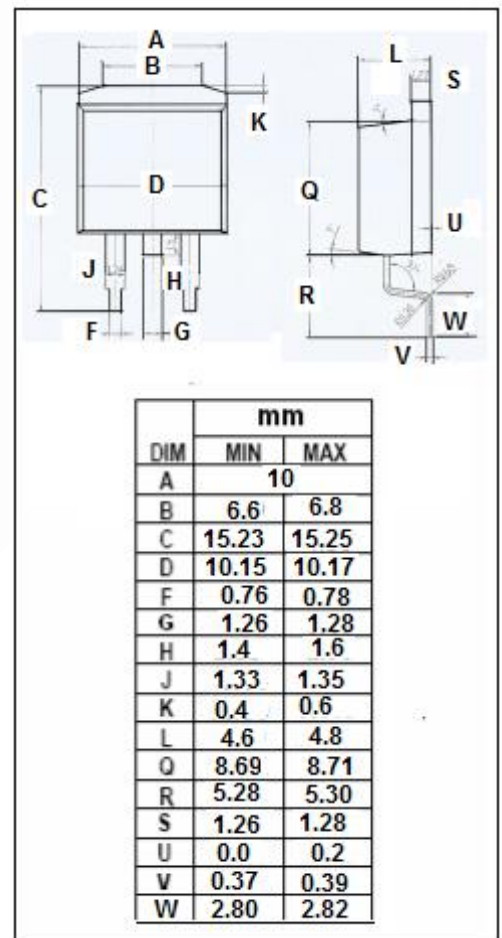
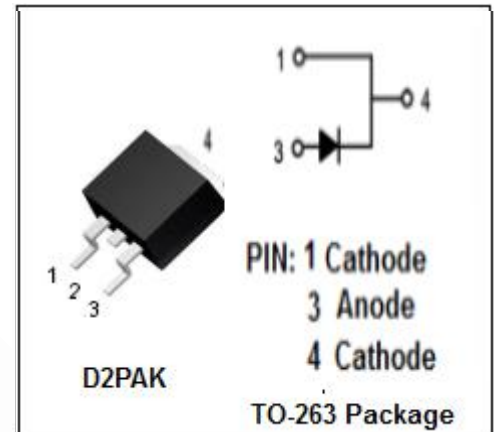
- With TO-263(DPAK) packaging
- Low forward voltage drop
- Super high speed switching
- High reliability by planer design
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

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 @ $T_c=100^{\circ}\text{C}$; Square Wave; Duty=1/2	5	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine wave superimposed on rated load conditions	65	A
TJ	Junction Temperature	-55~150	$^{\circ}\text{C}$
Tstg	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



Ultra fast Rectifier**UGS5J****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=5A ; T_c=25^{\circ}C$ $I_F=5A ; T_c=125^{\circ}C$	2.0 1.8	V
I_R	Maximum Instantaneous Reverse Current	$V_R= V_{RWM} T_c=25^{\circ}C$ $V_R= V_{RWM} T_c=125^{\circ}C$	0.02 0.25	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5A; I_R=1A; I_{rr}=0.25A$	20	ns

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