

Ultra fast Rectifier

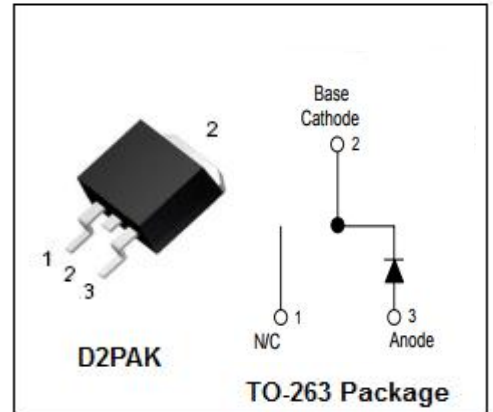
8ETH03S

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

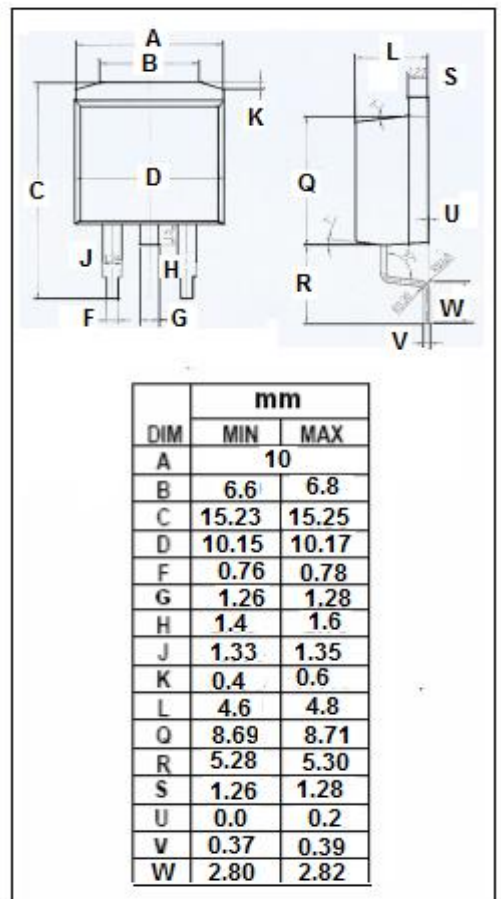
APPLICATIONS

- 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	300	V
IF(AV)	Average Rectified Forward Current @Tc=155°C; Square Wave; Duty=1/2	8	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	100	A
TJ	Junction Temperature	-65~175	°C
Tstg	Storage Temperature Range	-65~175	°C



Ultra fast Rectifier**8ETH03S****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^{\circ}C/W$

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	$I_F=8A ; T_c=25^{\circ}C$ $I_F=8A ; T_c=125^{\circ}C$	1.25 1.0	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 0.2	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F =1A; di/dt=-50A/\mu s; V_R=30V$	35	ns

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