

Ultra fast Rectifier

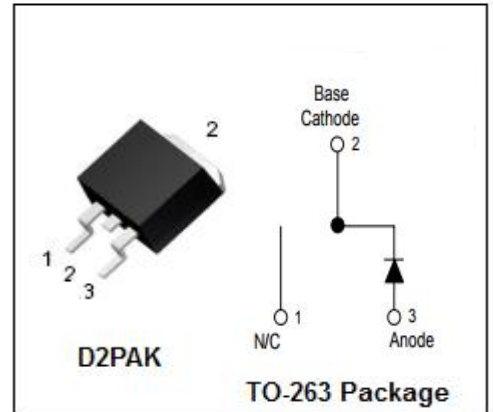
8ETH03S

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

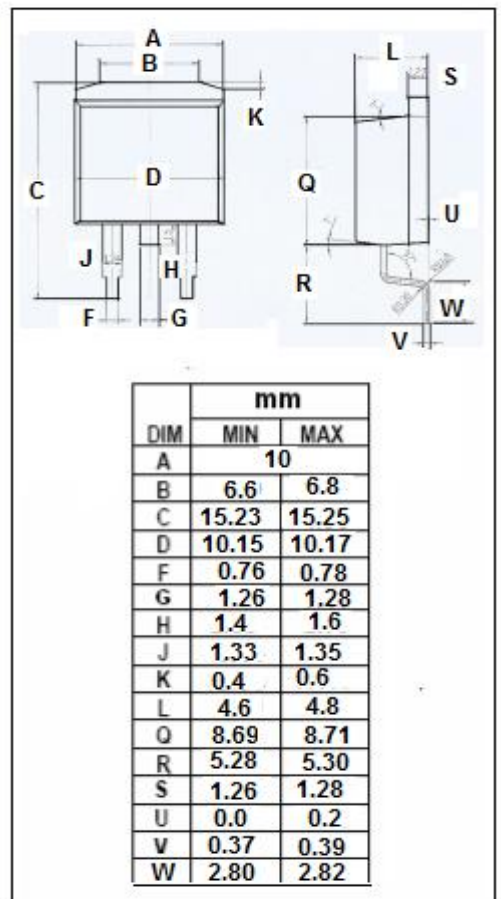
APPLICATIONS

- 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

NOTICE:

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.