

Hyperfast Rectifier

30ETH06

FEATURES

- Hyperfast recovery time
- Low forward voltage drop
- Low leakage current

APPLICATIONS

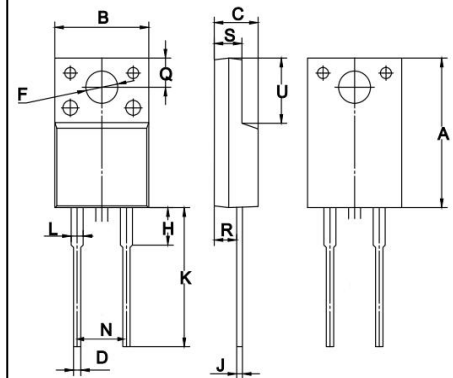
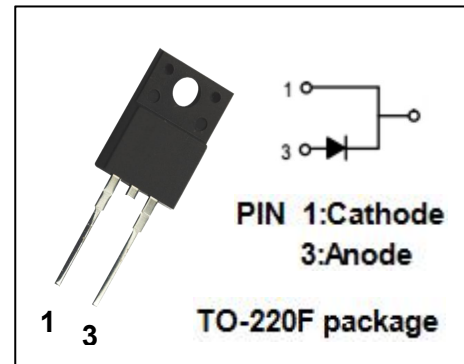
- PFC boost stage
- Inverters or as freewheeling diodes

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak Repetitive Reverse Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current $T_c = 37^{\circ}\text{C}$	30	A
I_{FSM}	Non-repetitive Peak Surge Current	220	A
T_j	Junction Temperature	-65~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.85	$^{\circ}\text{C/W}$




DIM	mm		
	MIN	TYP.	MAX
A	14.95	15.00	15.05
B	10.00	10.05	10.10
C	4.40	4.50	4.60
D	0.75	0.83	0.90
F	3.10	3.20	3.30
H	3.70	3.80	3.90
J	0.50	0.60	0.70
K	13.40	13.50	13.60
L	1.10	1.20	1.30
N	5.00	5.10	5.20
Q	2.70	2.80	2.90
R	2.20	2.30	2.40
S	2.65	2.78	2.90
U	6.40	6.50	6.60

Hyperfast Rectifier

30ETH06

ELECTRICAL CHARACTERISTICS($T_J = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 30\text{A}$, $T_J = 25^{\circ}\text{C}$	2.6	V
		$I_F = 30\text{A}$, $T_J = 150^{\circ}\text{C}$	1.75	
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}$	50	uA
		$V_R = V_{RWM}$, $T_J = 150^{\circ}\text{C}$	500	
t_{rr}	Maximum Reverse Recovery Time 	$I_F = 1.0\text{A}$, $di_F/dt = 50\text{A}/\mu\text{s}$, $V_R = 30\text{V}$	35	ns

PRODUCT DISCLAIMER

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.

It is strictly prohibited to reprint or copy part or all of this datasheet without permission from ISC.