

Ultra fast Rectifier

CTXS-4606S

FEATURES

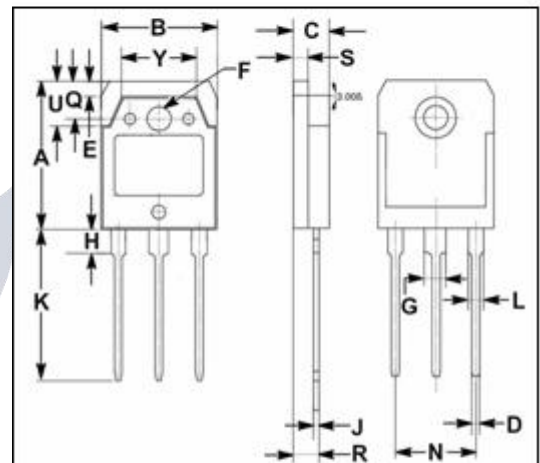
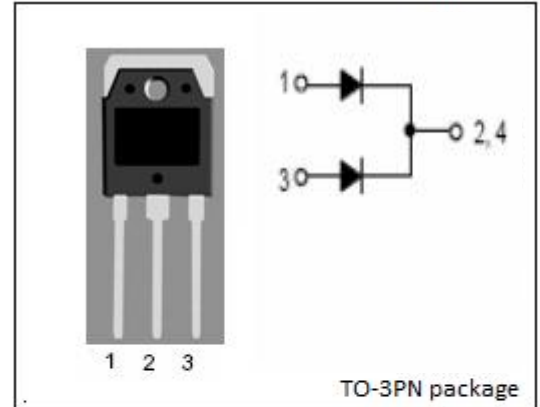
- With TO-3PN packaging
- Low thermal resistance
- Low leakage current
- Super high speed switching
- High reliability by planer design
- Very low on-state loss
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Active PFC in air conditioner
- Interleaved PFC topology in switched-mode power supplies

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 $t_w=500\text{ns}$; duty=1/40	600	V
IF(AV)	Average Rectified Forward Current @ $T_c=96^{\circ}\text{C}$; Square Wave; Duty=1/2	60	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	200	A
TJ	Junction Temperature	-40~150	$^{\circ}\text{C}$
Tstg	Storage Temperature Range	-40~150	$^{\circ}\text{C}$



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-mb}$	Thermal Resistance, Junction to Mounting Base	1.0	$^{\circ}\text{C}/\text{W}$

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	$I_F=30\text{A}$	1.7	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}$	100	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5\text{A}$; 90% recovery point	35	ns

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