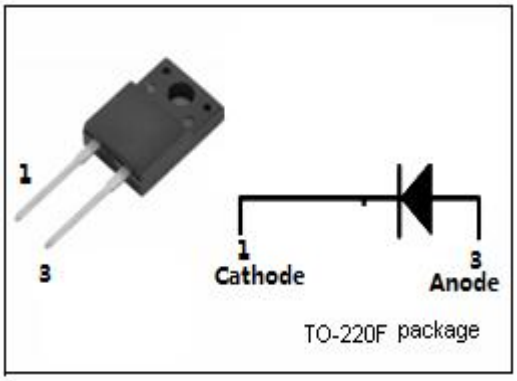
Ultra fast Rectifier BYR29X-800

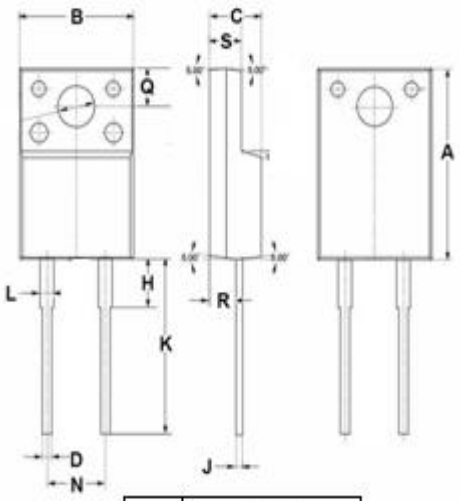


FEATURES

- With TO-220F packaging
- Low switching loss
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General rectification



DIM	mm MIN	mm MAX
A	14.80	15.20
B	9.96	10.36
C	4.30	4.70
D	0.50	0.75
H	2.70	2.90
J	0.50	0.75
K	12.80	13.20
L	1.10	1.35
N	4.88	5.28
Q	2.50	2.90
R	2.50	2.90
S	2.80	3.20

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage tw=500ns;duty=1/40		800	V
IF(AV)	Average Rectified Forward Current		8	A
IFRM	Repetitive Peak Forward Current		16	A
IFSM	Nonrepetitive Peak Surge Current	50Hz 60Hz	60 66	A
TJ	Junction Temperature		-40~150	℃
Tstg	Storage Temperature Range		-40~150	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	5.5	℃/W

ELECTRICAL CHARACTERISTICS(T_a=25℃) (Pulse Test: Pulse Width=300 μs,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F=8A,Tj=25℃ I_F=8A,Tj=150℃ I_F=20A,Tj=25℃	1.7 1.5 1.95	V
I_R	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$Tj=25℃ V_R= $V_{RWM;}$Tj=100℃	10 200	μA
t_{rr}	Maximum Reverse Recovery Time	I_F =1A;dI_F/dt=100A/ μs;V_R=30V	75	ns

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