

Ultrafast Rectifier

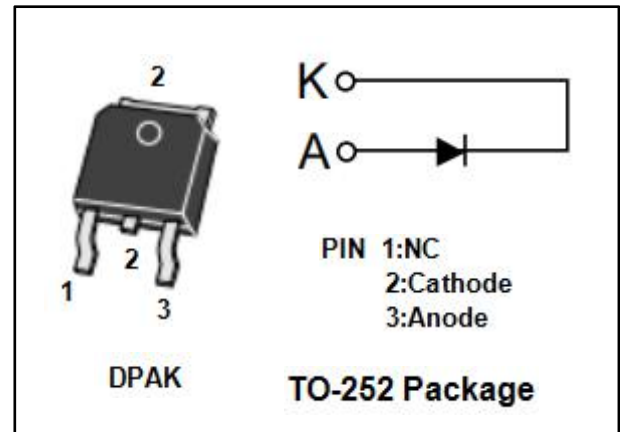
BYR5D-1200P

FEATURES

- 1200V blocking voltage
- Fast switching
- Soft recovery characteristics
- Low leakage current
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- This power rectifier is specifically designed for use as damper diode in horizontal deflection circuits for high and very high resolution monitors

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current	5	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	60	A
T_J	Junction Temperature	-65~175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

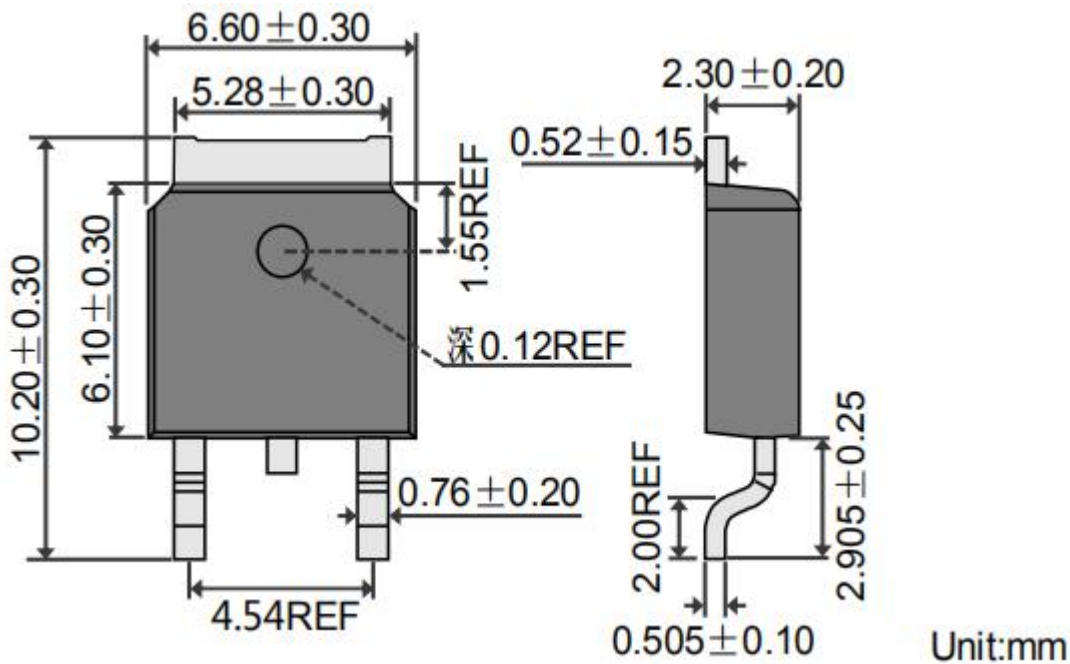
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^\circ\text{C/W}$

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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	$I_F = 5.0\text{A}; T_j = 25^{\circ}\text{C}$	2.2	V
I_R^*	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}; T_j = 150^{\circ}\text{C}$ $V_R = V_{RWM}$	500 50	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1\text{A}; di/dt = 50\text{A}/\mu\text{s}$	80	ns

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