

Super Fast Recovery Diode



Lead Free Package and Finish

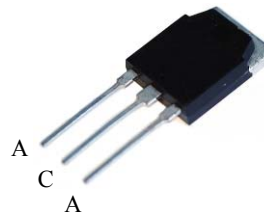
Features:

- Very Low Forward Voltage
- Very Fast Switching Time
- Low Power Loss
- High Reliability
- High Current Capability
- High Surge Current Capability

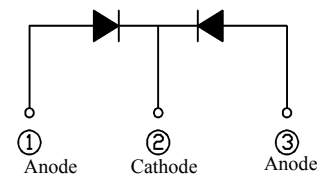
V_{RRM}	$I_{F(Average)}$	trr
200V	20A	25nS

Applications:

The device is mainly used in middle voltage, high frequency inverter and in power switch circuit of SMPS.



TO-3P(N)



Common Cathode

Equivalent Circuit

Ordering Information

PART NUMBER	PACKAGE	BRAND
2CR202ANLH	TO-3P(N)	2CR202ANLH

Absolute Maximum Ratings $T_c = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Maximum	Units
		2CR202ANLH	
V_{RRM}	Maximum Recurrent Peak Reverse Voltage	200	V
V_{RWM}	Maximum Peak Working Reverse Voltage	200	
V_R	Maximum DC Reverse Voltage	200	
$I_{F(AVERAGE)}$	Maximum Average Forward Rectified Current	20	A
I_{FSM}	Max.Peak Forward One Cycle Non-Repetitive Surge Current (10ms Single half sine-wave)	100	A
T_J	Operation Junction	150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-40~150	

Caution: Stresses greater than those listed in "Absolute Maximum Ratings" Table may cause permanent damage to the device.

Thermal Resistance

Symbol	Parameter	Maximum	Units	Test Condition
		2CR202ANLH		
$R_{\theta JC}$	Junction-to-Case	1.5	$^\circ\text{C}/\text{W}$	Water cooled heat sink, Pd adjusted for a peak junction temperature of +150 $^\circ\text{C}$.

Electrical Characteristics ($T_c=25^\circ\text{C}$ unless otherwise specified):

Symbol	Parameter	Rating			Units	Test Conditions
		Min.	Typ.	Max.		
V_F	Instantaneous Forward Voltage	--	--	0.95	V	$I_F=10\text{A}$ (Note1)
		--	--	1.00		$I_F=20\text{A}$ (Note1)
I_R	Instantaneous DC Reverse Leakage Current	--	--	10	μA	$V_R=200\text{V}$
t_{rr}	Reverse Recovery Time	--	--	25	nS	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{REC}=0.25\text{A}$
C_T	Max. Junction Capacitance	--	--	260	pF	$F=1\text{MHz}$, $V_R=5\text{VDC}$

Notes:

*1. Pulse width $\leq 300\mu\text{s}$; duty cycle $\leq 2\%$.

Package:

TO-3P(N) , Green material, the information as follow:

Part's Name	Hazardous Substance					
	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
Limit	≤0.1%	≤0.1%	≤0.01%	≤0.1%	≤0.1%	≤0.1%
Lead Frame	○	○	○	○	○	○
Molding Compound	○	○	○	○	○	○
Chip	○	○	○	○	○	○
Wire Bonding	○	○	○	○	○	○
Solder	×	○	○	○	○	○
Note	○: Means the hazardous material is under the criterion of SJ/T11363-2006. ×: Means the hazardous material exceeds the criterion of SJ/T11363-2006. The plumbum element of solder exist in products presently, but within the allowed range of Eurogroup's RoHS.					

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