



APT2X100D20J 200V 100A
APT2X101D20J 200V 100A

DUAL DIE ISOTOP® PACKAGE

ULTRAFAST SOFT RECOVERY DUAL RECTIFIER DIODES

PRODUCT APPLICATIONS

- Anti-Parallel Diode
 - Switchmode Power Supply
 - Inverters
- Free Wheeling Diode
 - Motor Controllers
 - Converters
- Snubber Diode
- Uninterruptible Power Supply (UPS)
- Induction Heating
- High Speed Rectifiers

PRODUCT FEATURES

- Ultrafast Recovery Times
- Soft Recovery Characteristics
- Popular SOT-227 Package
- Low Forward Voltage
- High Blocking Voltage
- Low Leakage Current

PRODUCT BENEFITS

- Low Losses
- Low Noise Switching
- Cooler Operation
- Higher Reliability Systems
- Increased System Power Density

MAXIMUM RATINGS

All Ratings: $T_C = 25^\circ\text{C}$ unless otherwise specified.

Symbol	Characteristic / Test Conditions	APT2X100/2X101D20J	UNIT
V_R	Maximum D.C. Reverse Voltage	200	Volts
V_{RRM}	Maximum Peak Repetitive Reverse Voltage		
V_{RWM}	Maximum Working Peak Reverse Voltage		
$I_F(AV)$	Maximum Average Forward Current ($T_C = 95^\circ\text{C}$, Duty Cycle = 0.5)	100	Amps
$I_F(RMS)$	RMS Forward Current	170	
I_{FSM}	Non-Repetitive Forward Surge Current ($T_J = 45^\circ\text{C}$, 8.3ms)	1000	
T_J, T_{STG}	Operating and Storage Temperature Range	-55 to 150	$^\circ\text{C}$
T_L	Lead Temperature: 0.063" from Case for 10 Sec.	300	

STATIC ELECTRICAL CHARACTERISTICS

Symbol	Characteristic / Test Conditions	MIN	TYP	MAX	UNIT
V_F	Maximum Forward Voltage	$I_F = 100\text{A}$		1.1	Volts
		$I_F = 200\text{A}$		1.25	
		$I_F = 100\text{A}, T_J = 150^\circ\text{C}$		0.95	
I_{RM}	Maximum Reverse Leakage Current	$V_R = V_R \text{ Rated}$		500	μA
		$V_R = V_R \text{ Rated}, T_J = 125^\circ\text{C}$		1000	
C_T	Junction Capacitance, $V_R = 200\text{V}$		215		pF
L_S	Series Inductance (Lead to Lead 5mm from Base)		10		nH

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APT2X100/2X101D20J

THERMAL AND MECHANICAL CHARACTERISTICS

APT Reserves the right to change, without notice, the specifications and information contained herein.

Technical drawing of the APT2X100D20J and APT2X101D20J components. The drawing includes a top view of the Anti-parallel APT2X100D20J component with dimensions in millimeters and inches. It shows a rectangular component with four circular features (Anode 1, Cathode 1, Anode 2, Cathode 2) and a central rectangular feature. Dimensions include overall width (31.5, 31.7), overall height (14.9, 15.1), and individual feature dimensions. A side view shows the component's profile with dimensions for the central feature (11.8, 12.2) and the side features (8.9, 9.6). A detail view shows the Hex Nut M4 H100 (4 places) and dimensions for the central feature (0.75, 0.85). The drawing also includes a table of dimensions for the Parallel APT2X101D20J component.

Anti-parallel APT2X100D20J	Parallel APT2X101D20J
Anode 2	Cathode 1
Cathode 1	Anode 1
Cathode 2	Cathode 2
Anode 1	Anode 2