

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: G20H120CTFW
Manufacturer: Diodes Incorporated
Package: Tube
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/diodes-incorporated/g20h120ctfw.html>

Request a Quote:

[Submit RFQ for this part](#)



Scan for product page

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Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

G20H120CTFW

TRENCH SCHOTTKY RECTIFIER

REVERSE VOLTAGE – 120 Volts
FORWARD CURRENT – 20 Amperes

FEATURES

- High junction temperature capability
- Negligible switching losses
- Good trade off between leakage current and forward voltage drop
- Qualification is according to AEC-Q101 Rev_D
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

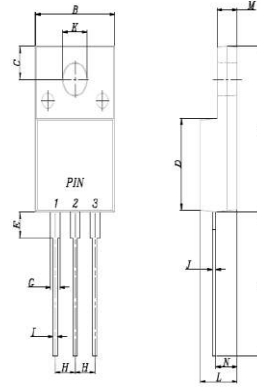
APPLICATION

- High frequency miniature switch mode of adaptors
- On-board DC-DC converters
- Use in high frequency inverters

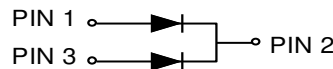
MECHANICAL DATA

- Package: JEDEC TO-220ABFP
- Package Material: "Green" Molding compound, UL flammability classification 94V-0, "Halogen-free".
- Lead free finish, RoHS compliant
- Polarity : As marked on body
- Marking code: G20H120CTFW
- Weight: 0.05 ounces, 1.558 grams (Approximate)

ITO-220(S)AB



ITO-220(S)AB		
DIM	MIN	MAX
A	14.95	15.95
B	10.00	10.40
C	2.76	3.36
D	8.50	8.80
E	2.10	2.50
F	13.00	13.70
G	1.15	1.37
H	2.40	2.70
I	0.50	0.80
J	0.45	0.70
K	3.00	3.30
L	4.46	4.87
M	2.48	2.80
N	2.50	2.80
All dimension in millimeter		



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	120	V
Maximum DC blocking voltage	V_{DC}	120	V
Maximum Average rectified forward current	I_{AV}	20	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	280	A
Non repetitive peak reverse current	I_{RSM}	3	A
Operating Junction and Storage temperature range	T_J, T_{STG}	-55 ~ +175	°C

STATIC ELECTRICAL CHARACTERISTICS

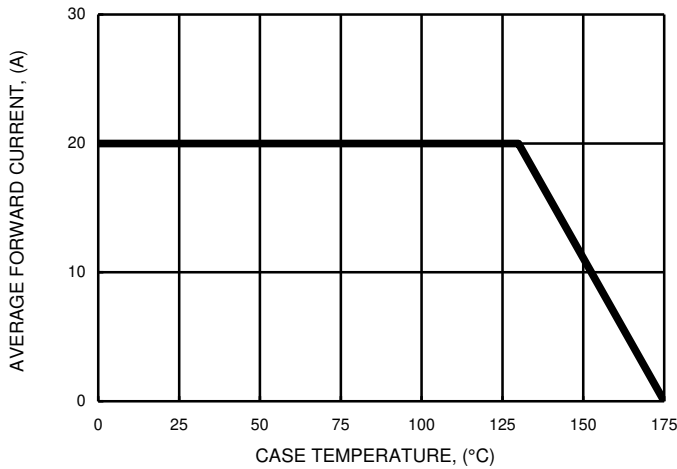
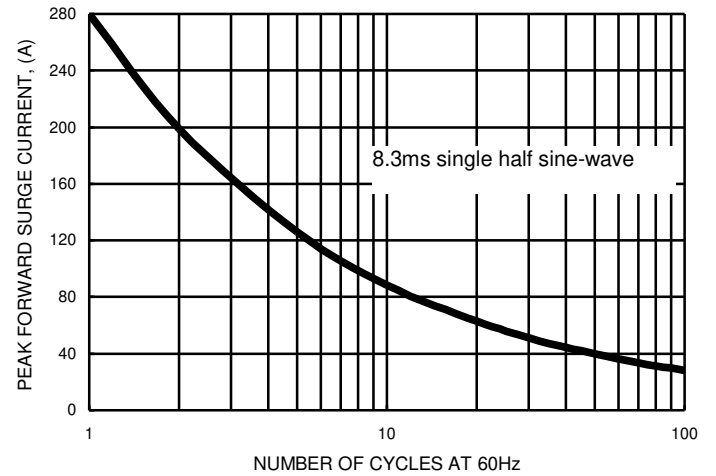
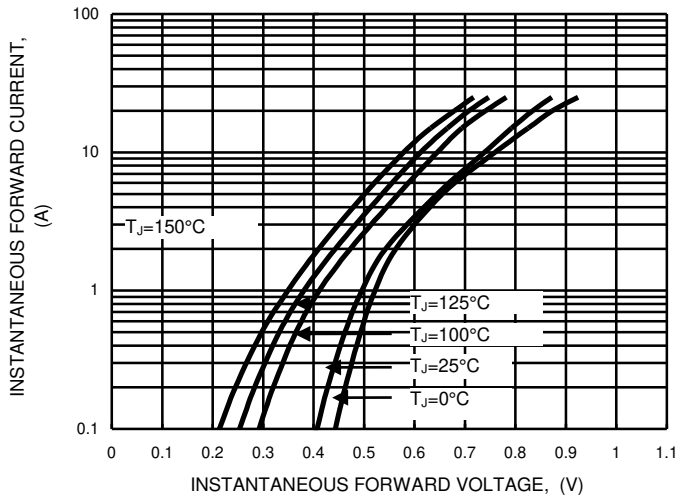
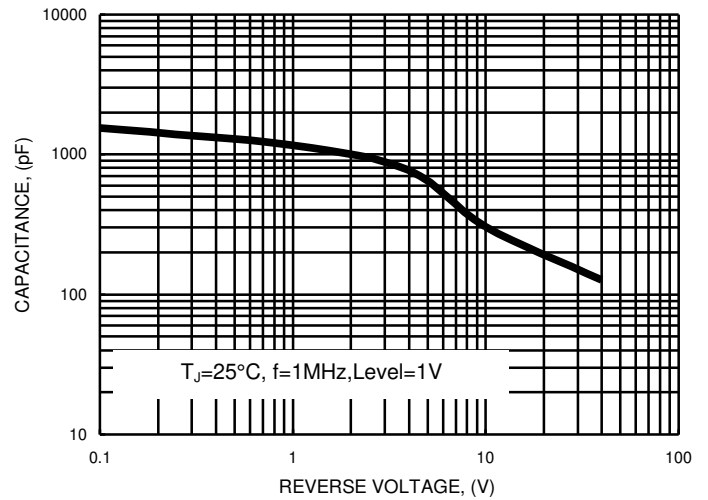
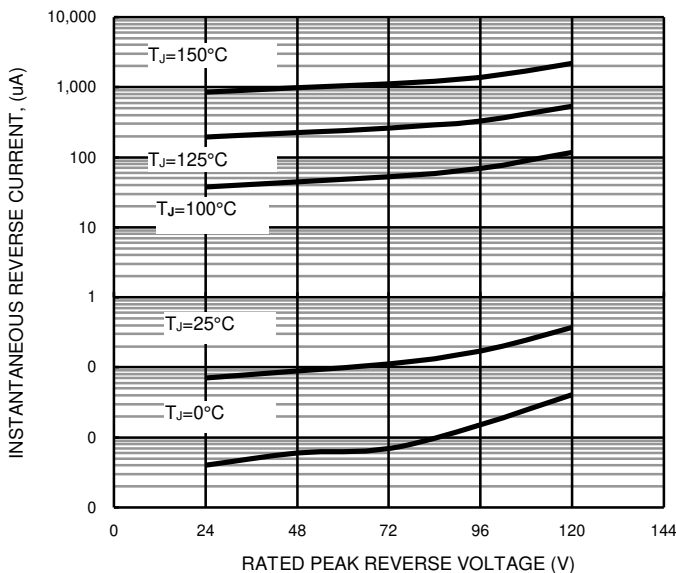
PARAMETER	TEST CONDITION	SYMBOL	TYP	MAX	UNIT
Forward voltage (Note 4)	$I_F = 10A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	V_F	-- 0.63	0.83 --	V
Reverse leakage current	$V_R = 120V$ $T_J = 25^\circ C$ $T_J = 125^\circ C$	I_R	-- 0.6	4 5	uA mA
Typical junction capacitance (Note 5)		C_J	770		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP	UNIT
Typical thermal resistance (Note 6,7)	R_{thJL}	3	°C/W
	R_{thJC}	3	°C/W

Note:

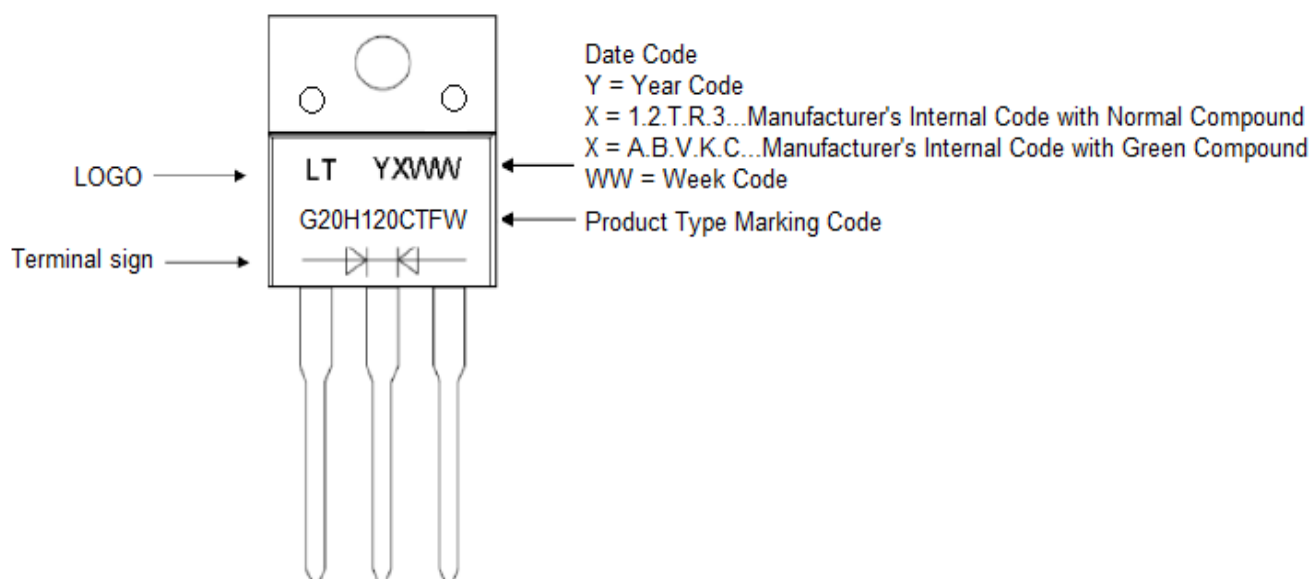
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300µs pulse width, 2% duty cycle.
5. Measured at 1.0MHz and applied reverse voltage of 4.0 VDC.
6. Thermal resistance test performed in accordance with JESD-51.
7. The unit mounted on Aluminum plate 15mm x 12mm x 1.62mm and copper heatsink 75mm*75mm*1.8mm.

RATING AND CHARACTERISTIC CURVES
G20H120CTFW
FIG.1- FORWARD CURRENT DERATING CURVE

FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

FIG.3- TYPICAL FORWARD CHARACTERISTICS

FIG.4- TYPICAL JUNCTION CAPACITANCE

FIG.5- TYPICAL REVERSE CHARACTERISTICS


Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
G20H120CTFW	ITO-220(S)AB	50pcs	Tube

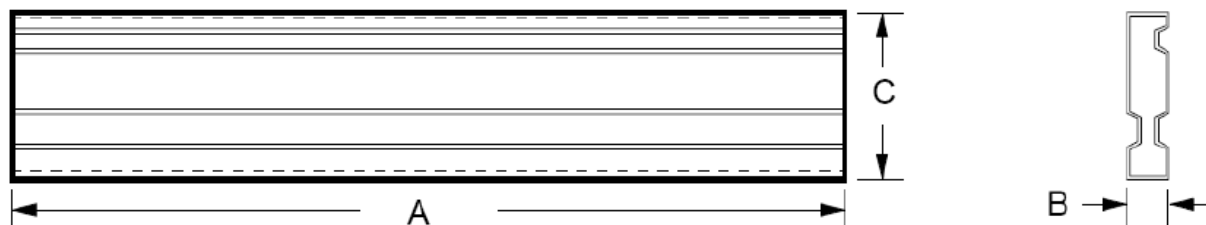
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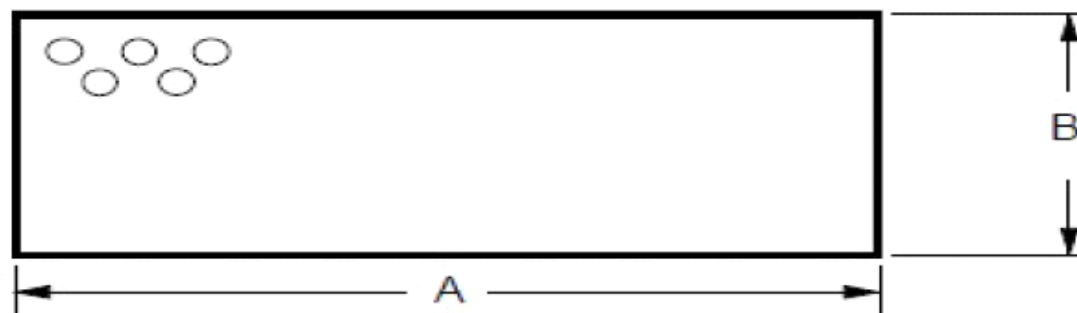
PACKAGING INFORMATION
G20H120CTFW

Packaging Information:

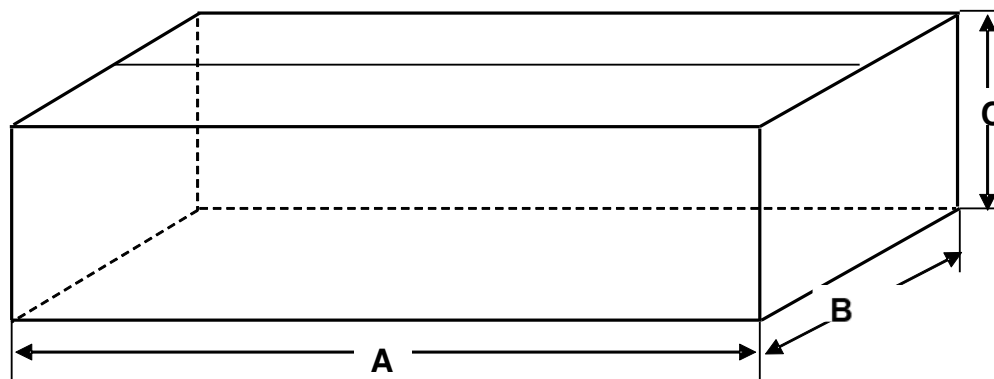
1. TUBE



2. AIR BAG

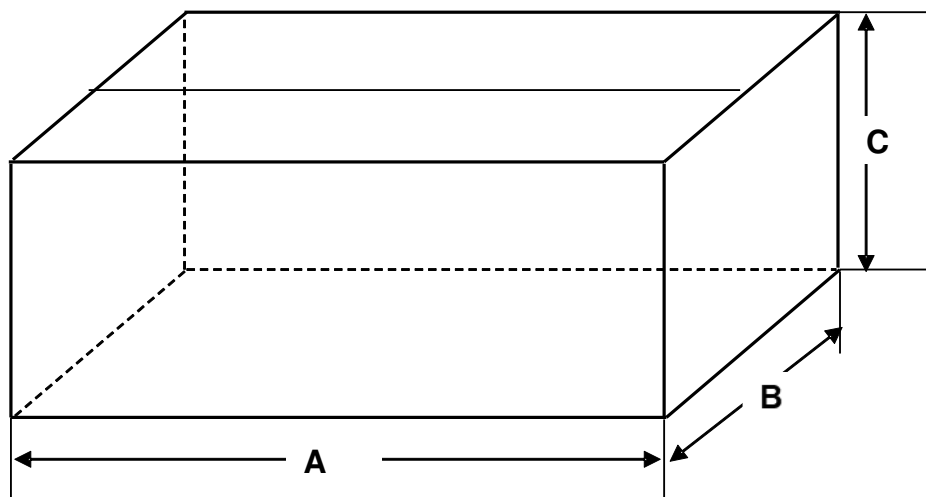


3. INNERBOX



Packaging Information (continued):

4. CARTON



Unit: mm

P/N	DIMENSION "A"	DIMENSION "B"	DIMENSION "C"	Q'ty/per	REMARK
TUBE	536	5.6	31.8	50	/
AIR BAG	800	550	/	/	/
INNERBOX	555	165	105	2000	40TUBE
CARTON	575	179	225	4K	2 INNER BOX

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