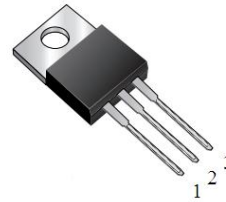


## HBRA10200CT & HBRA10200FCT

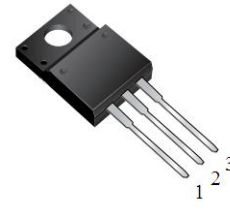
### 10.0AMPS. SCHOTTKY BARRIER RECTIFIERS

#### FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed  
260°C /10seconds, 0.25"(6.35mm)from case.



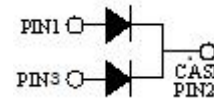
TO-220AB  
HBRA10200CT



ITO-220AB  
HBRA10200FCT

#### MECHANICAL DATA

- . Case: Molded with UL-94 Class V-0 recognized  
Flame Retardant Epoxy
- . Mounting position: any



Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

#### MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	HBRA10200CT & HBRA10200FCT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	V
Maximum RMS Voltage	$V_{RMS}$	140	V
Maximum DC blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current <i>Per Leg</i> at T <sub>C</sub> =100°C <i>Total device</i>	$I_{F(AV)}$	5.0 10.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) <i>Per Leg</i>	$I_{FSM}$	120.0	A
Typical Junction Capacitance (Note 1)	$C_J$	60	pF
Operation Junction Temperature and Storage Temperature	$T_J, T_{STG}$	-55 to +175	°C

#### ELECTRICAL CHARACTERISTICS - (Per Leg) (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Typ	Max	Units	
Forward voltage drop	$V_F$	T <sub>J</sub> =25°C	I <sub>F</sub> =2A	0.76	---	V
			I <sub>F</sub> =5A	0.83	0.90	
		T <sub>J</sub> =125°C	I <sub>F</sub> =2A	0.61	---	
			I <sub>F</sub> =5A	0.69	0.80	
Reverse leakage current	$I_R$	T <sub>J</sub> =25°C	V <sub>R</sub> =200V	---	20	uA
		T <sub>J</sub> =125°C	V <sub>R</sub> =200V	---	5	mA

#### THERMAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

Parameter	Symbol	HBRA10200CT	HBRA10200FCT	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.0	3.0	°C/W

#### Notes:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case

RATING AND CHARACTERISTIC CURVES

FIG1-TYPICAL FORWARD CURRENT DERATING CURVE

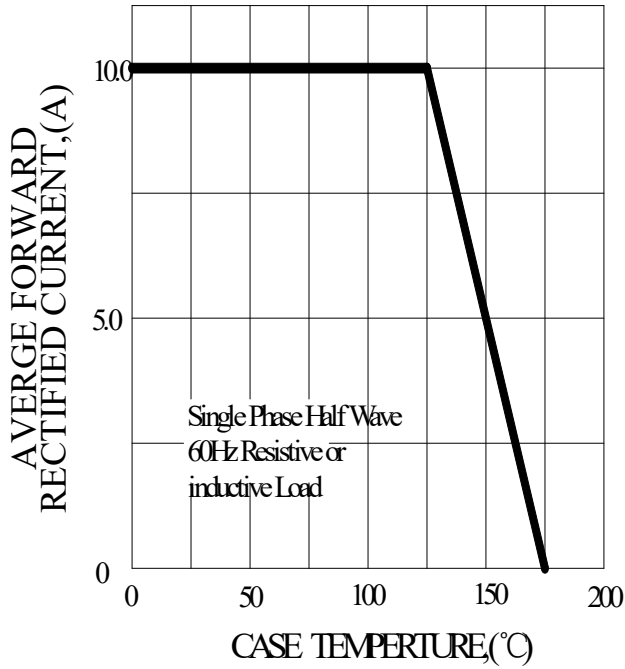


FIG2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

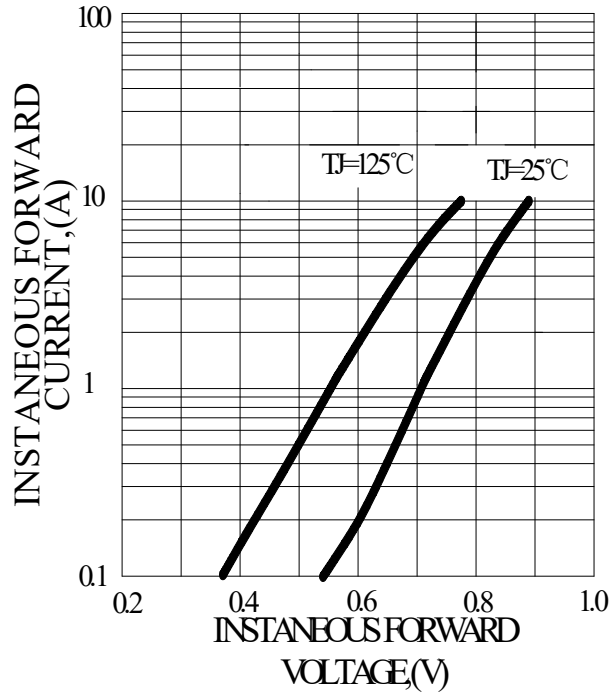


FIG3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

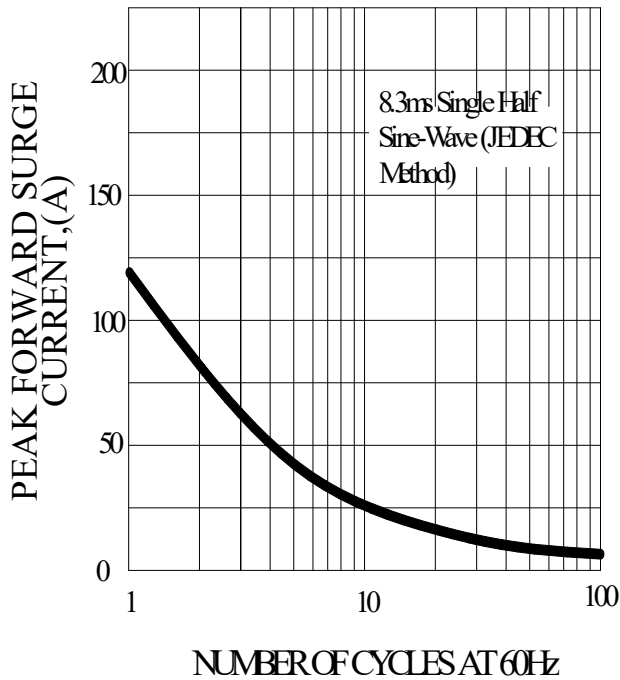
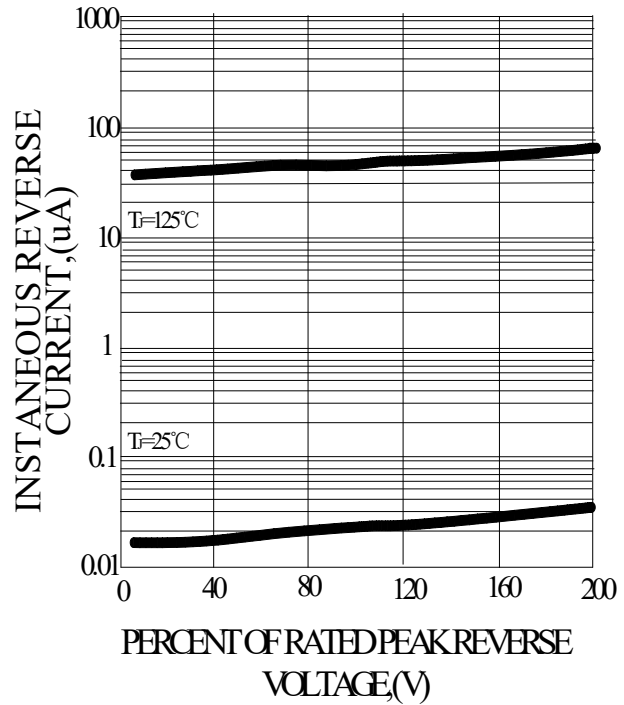
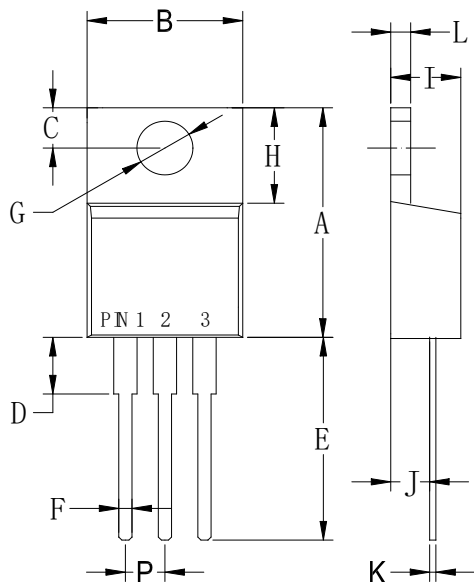


FIG4-TYPICAL REVERSE CHARACTERISTICS



**PACKAGE OUTLINE DIMENSIONS**

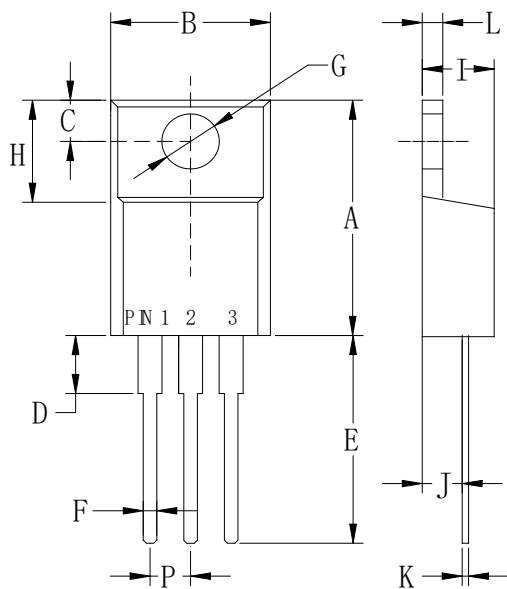
**TO-220AB**



TO-220AB		
Dim	Min	Max
A	.573 (14.55)	.603 (15.32)
B	—	.412 (10.5)
C	.103 (2.62)	.113 (2.87)
D	.140 (3.56)	.160 (4.06)
E	.510 (13.0)	.560 (14.3)
F	.027 (0.68)	.037 (0.94)
G	.148 (3.74)	.154 (3.91)
H	.230 (5.84)	.270 (6.86)
I	.175 (4.44)	.185 (4.66)
J	.100 (2.54)	.110 (2.79)
K	.014 (0.35)	.025 (0.64)
L	.045 (1.14)	.055 (1.40)
P	.095 (2.41)	.105 (2.67)

Dimensions in inches and (millimeters)

**ITO-220AB**

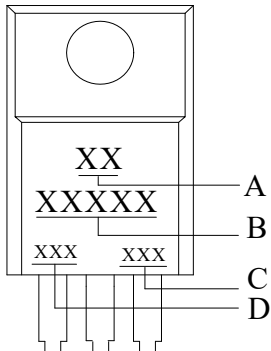


ITO-220AB		
Dim	Min	Max
A	.571 (14.5)	.610 (15.5)
B	.383 (9.72)	.406 (10.3)
C	.110 (2.80)	.126 (3.20)
D	.133 (3.38)	.162 (4.10)
E	.512 (13.0)	.551 (14.0)
F	.028 (0.70)	.035 (0.90)
G	.114 (2.90)	.138 (3.50)
H	.268 (6.80)	.291 (7.40)
I	.162 (4.10)	.185 (4.70)
J	.102 (2.60)	.110 (2.80)
K	.018 (0.45)	.026 (0.65)
L	.097 (2.46)	.113 (2.86)
P	.890 (2.25)	.113 (2.85)

Dimensions in inches and (millimeters)

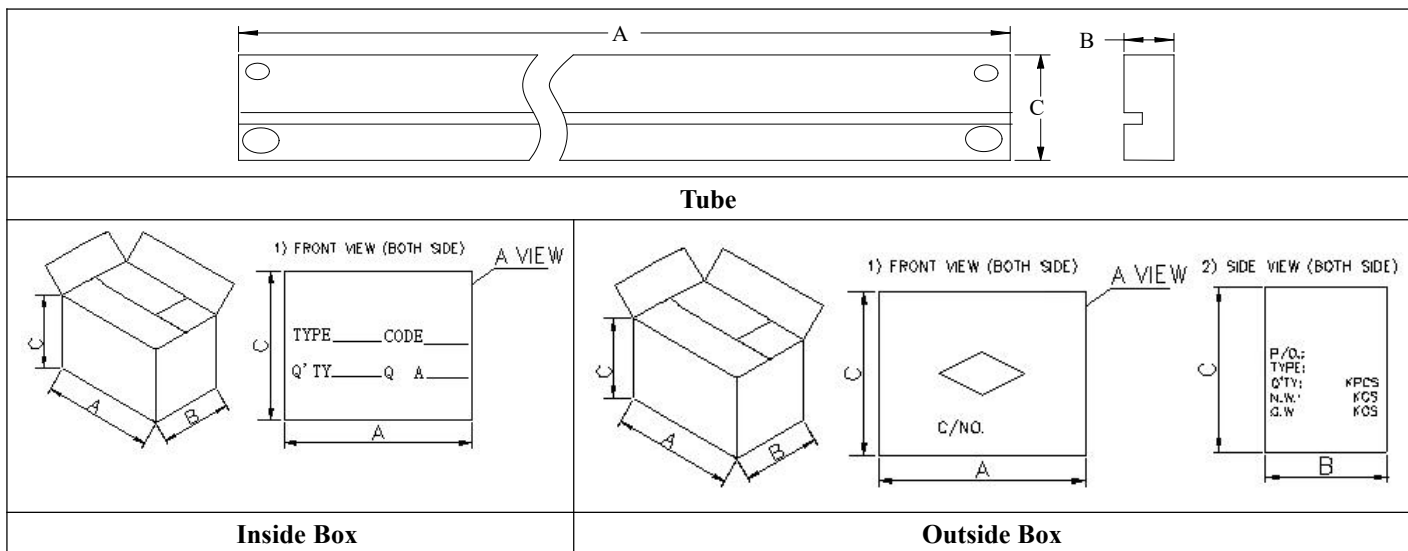
## Marking and packaging illustration

### 1、Marking



SYMBOL	Explanation
<b>A</b>	Trademark
<b>B</b>	Product Name
<b>C</b>	Date Code
<b>D</b>	Product Information

### 2、Packaging



类别	A (mm)	B (mm)	C (mm)
T0-220 Tube(50EA per tube )	530±5	7±0.8	33±1
T0-220 Inside Box (1K per box)	542±5	82±2	78±1
T0-220 outside Box (6K per box)	555±5	285±5	245±5



# 样品测试报告

样品名称		HBRA10200FCT				记录	陈亮									
样品商标		PY				审核	王化									
电参数测试					直方图分布											
测试条件	IF=5.0A	VR=200V	IR=0.2mA	IF=0.5A,IR=1A, Recover to0.25A	V <sub>F</sub>			判定	合格							
合格标准	V <sub>F</sub> (V) ≤ 0.950	I <sub>R</sub> (uA) ≤ 100	V <sub>R</sub> (V) ≥ 200	TRR(nS)	MAX	MIN	R	AVG	σ	CPK						
					0.808	0.798	0.010	0.802	0.003	17.71						
1	0.798	0.74	238.1		<p>VF直方图</p>											
	0.798	0.85	240.5													
2	0.799	0.86	239.3													
	0.805	0.88	240.6													
3	0.804	0.68	237.4													
	0.805	0.98	237.1													
4	0.799	0.93	241.2													
	0.806	0.78	239.1													
5	0.799	0.98	237.9													
	0.807	0.69	241.7													
6	0.805	1.01	240.9													
	0.801	0.85	236.5													
7	0.801	0.93	240.9								I <sub>R</sub>			判定	合格	
	0.800	0.98	241.1								MAX	MIN	R	AVG	σ	CPK
8	0.798	0.78	236.6								1.012	0.665	0.347	0.821	0.118	279.78
	0.800	0.74	240.5								<p>IR直方图</p>					
9	0.807	0.74	240.1													
	0.803	0.77	238.1													
10	0.806	0.88	239.6													
	0.802	0.76	237.1													
11	0.804	0.78	238.8													
	0.801	0.94	238.0													
12	0.804	0.80	237.7													
	0.808	1.01	238.5													
13	0.801	0.70	237.3													
	0.801	0.67	239.1													
14	0.800	0.73	237.1		V <sub>R</sub>			判定	合格							
	0.799	0.76	238.3		MAX	MIN	R	AVG	σ	CPK						
15	0.802	1.00	237.2		242	237	5	239	1.484	8.74						
	0.803	0.68	238.3		<p>VR直方图</p>											
16	0.799	0.73	238.0													
	0.802	1.00	237.1													
17	0.804	0.79	237.5													
	0.800	0.69	239.4													
18	0.806	1.01	240.8													
	0.801	0.67	240.8													
19	0.806	0.97	240.1													
	0.801	0.68	240.5													
20	0.803	0.69	238.2													
	0.802	0.72	238.6													
					TRR			判定	FALSE							
					MAX	MIN	R	AVG	σ	CPK						
					0	0	0	#DIV/0!	#DIV/0!	未测试						
					<p>TRR直方图</p>											

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