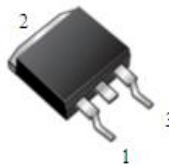


## HBRA20200BCT&HBRA20200HCT

### 20.0AMPS. 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.



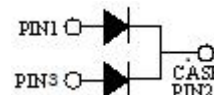
TO-263-2L  
HBRA20200BCT



TO-262-3L  
HBRA20200HCT

#### 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	HBRA20200BCT&HBRA20200HCT	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>	$I_{F(AV)}$	10.0 20.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) <i>Per Leg</i>	$I_{FSM}$	150.0	A
Typical Junction Capacitance (Note 1)	$C_J$	90	pF
Operation Junction Temperature and Storage Temperature	$T_J, T_{STG}$	-55 to +175	°C

#### ELECTRICAL CHARACTERISTICS-(per leg) (T<sub>A</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	0.73	----	V
			I <sub>F</sub> =10A	0.86	0.95	
		T <sub>J</sub> =125°C	I <sub>F</sub> =2A	0.58	----	
			I <sub>F</sub> =10A	0.72	0.80	
Reverse leakage current	$I_R$	T <sub>J</sub> =25°C	V <sub>R</sub> =200V	----	50	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	HBRA20200BCT	HBRA20200HCT	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.0	2.0	°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

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

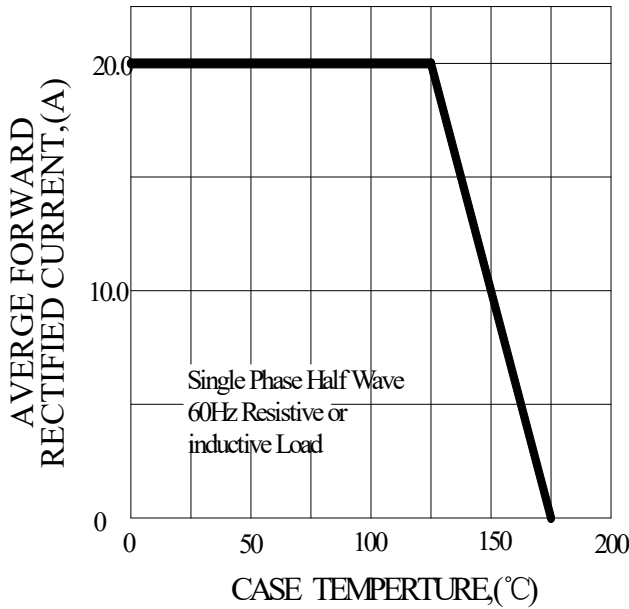


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

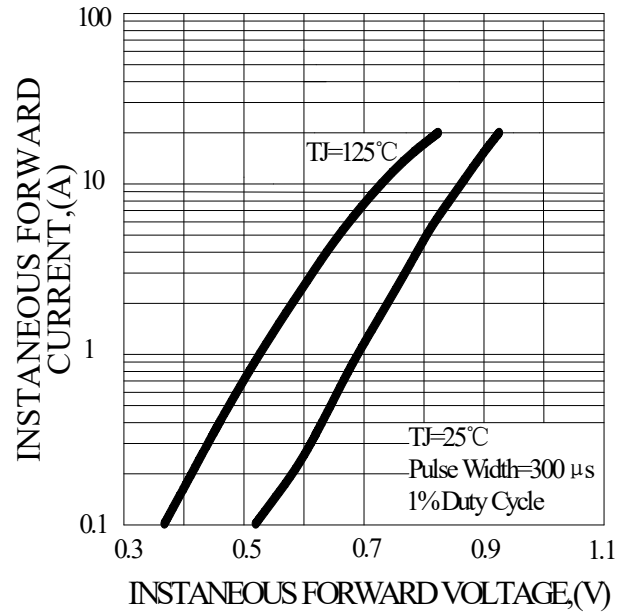


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

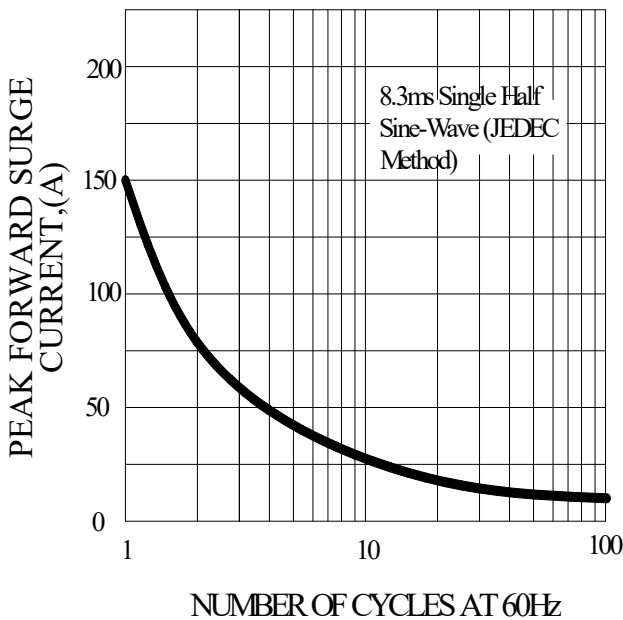
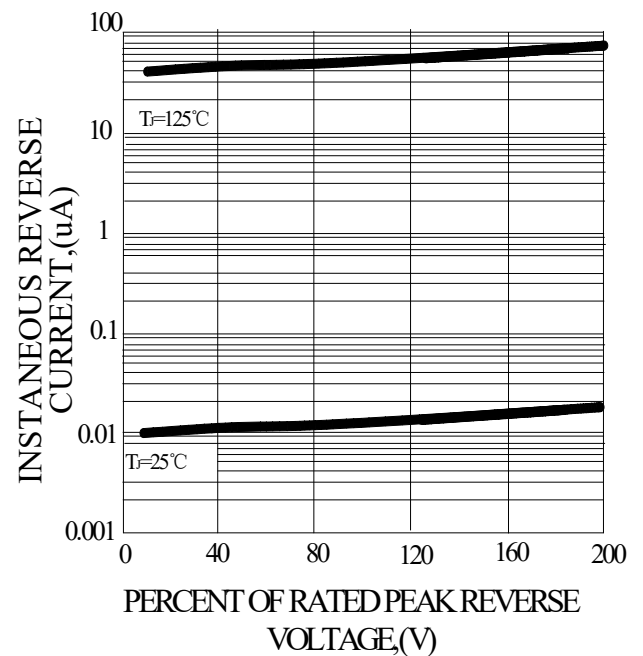
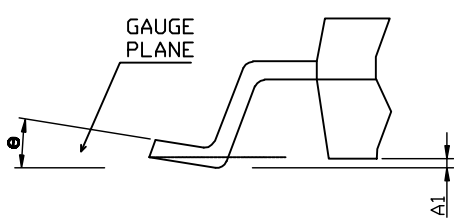
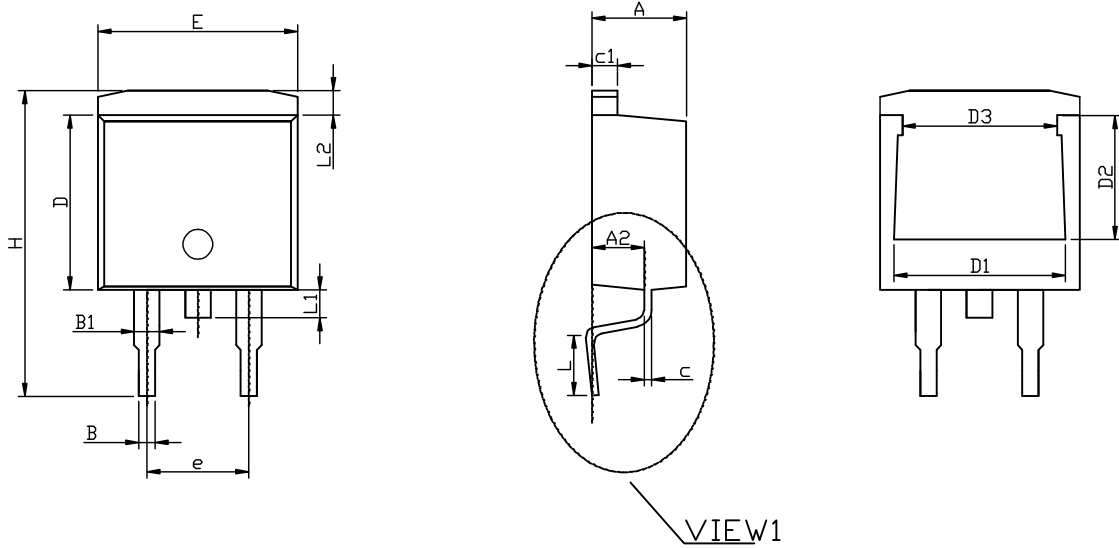


FIG.4-TYPICAL REVERSE CHARACTERISTICS

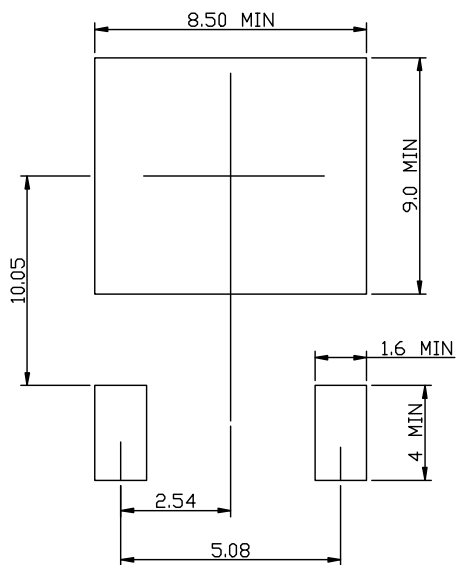


# TO-263-2L PACKAGE OUTLINE



VIEW1

## RECOMMENDED LAND PATTERN

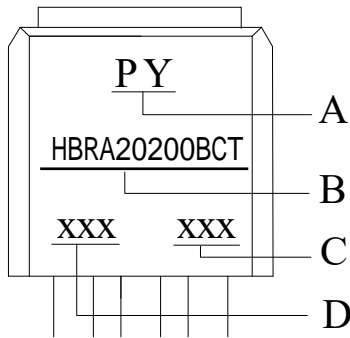


	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	0.05	0.15	0.30
A2	2.45	2.60	2.70
B	0.72	0.82	0.92
B1	1.12	1.27	1.42
c	0.28	0.38	0.48
c1	1.17	1.27	1.37
D	8.46	8.66	8.86
D1	7.90	8.10	8.40
D2	5.50	5.70	5.90
D3	7.10	7.30	7.50
E	9.85	10.15	10.45
e		5.08BCS	
H	14.75	15.15	15.55
L	2.30	2.55	2.80
L1	1.20	1.40	1.60
L2	1.01	1.23	1.50
θ	0°	7°	8°

UNIT: mm

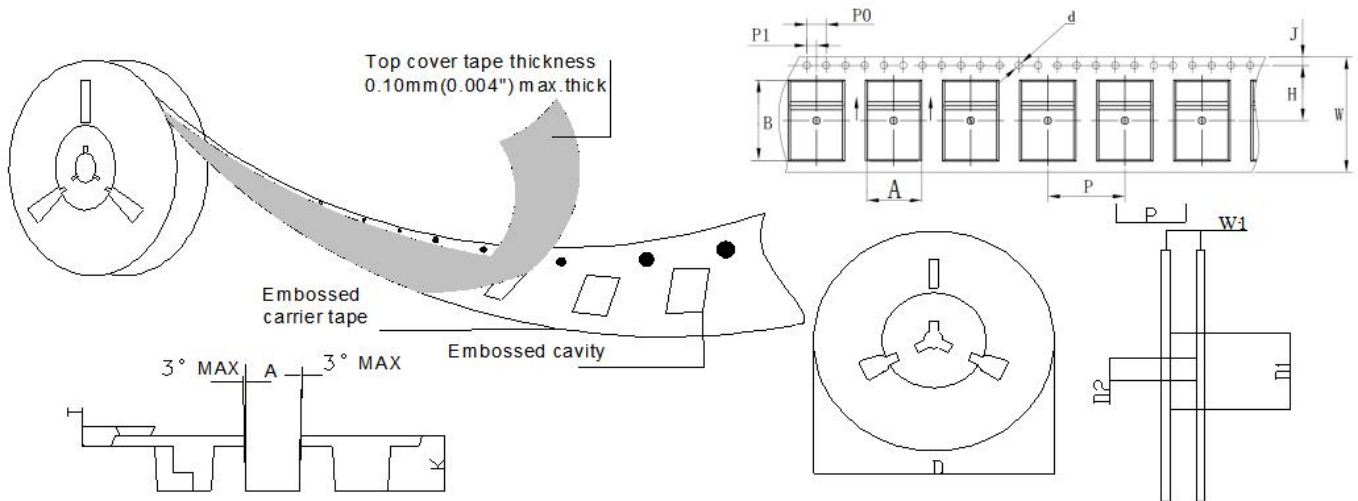
## Marking and packaging illustration

### 1、 Marking



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

### 2、 Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	TO-263	ITEM	SYM BOL	TO-263
Carrier width	A	11.65(0.459)Typ	Carrier depth	K	5.15(0.203)Typ
Carrier length	B	17.05(0.672)Typ	Punch hole pitch	P	16.00(0.630)Typ
Sprocket hole	d	ø1.50(0.059)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	90.0(3.54)Typ	Overall tape thickness	T	0.40(0.016)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	24.0(0.945)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	25.5(1.000)Typ
Punch hole position	H	11.50(0.453)Typ			