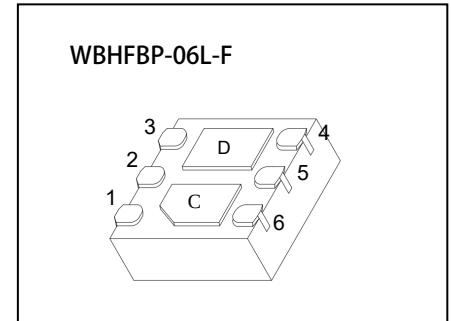


CJMNT32 PNP Power Transistor with N-MOSFET

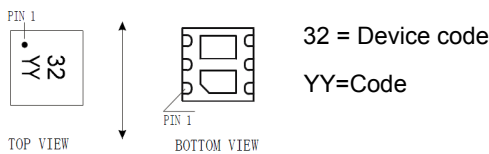
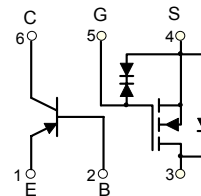
$V_{(BR)DSS}/V_R$	$R_{DS(on)MAX}$	I_D/I_C
20V	600mΩ@4.5V	0.8A
	650mΩ@2.5V	
	700mΩ@1.8V	
-32V	/	-1.5A


FEATURE

- Ultra low collector-to-emitter saturation voltage
- High DC current gain
- Small package WBHFBP-06L-F

APPLICATION

- Charging circuit
- Other power management in portable equipment

MARKING

Equivalent circuit

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
PNP Transistor			
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous(Note1)	-1.5	A
	Collector Current-Continuous(Note2)	-0.6	A
I_{CM}	Collector Current-Pulse(Note3)	-4	A
N-MOSFET			
V_{DS}	Drain-Source Voltage	20	V
V_{GS}	Gate-Source Voltage	±5	V
I_D	Continuous Drain Current (note 1)	0.8	A
	Collector Current-Continuous(Note2)	0.69	A
I_{DM}	Collector Current-Pulse(Note3)	1.4	A
Power Dissipation, Temperature and Thermal Resistance			
P_D	PowerDissipation	0.7	W
P_C	Power Dissipation ($T_c=25^\circ\text{C}$,Note1)	2.5	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	178.6	$^\circ\text{C}/\text{W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Te mperature	-55~+150	$^\circ\text{C}$
T_L	Lead Temperature	260	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

$T_a=25\text{ }^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
PNP Transistor						
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-1mA,I _E =0	-32			V
Collector-emitter breakdown	V _{(BR)CEO}	I _C =-10mA,I _B =0	-32			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100uA,I _C =0	-6			V
Collector cut-off current	I _{CBO}	V _{CB} =-30V,I _E =0			-0.1	uA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V,I _C =0			-0.1	uA
DC current gain	h _{FE}	V _{CE} =-2V,I _C =-0.5A	100		300	
Collecior-emitter saturation voltage	V _{CE(sat)}	I _C =-0.5A,I _B =-50mA			-0.35	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-0.5A,I _B =-50mA			-1.5	V
Base-emitter voltage	V _{BE(on)}	V _{CE} =-2V,I _C =-500mA			-1.1	V
N-MOSFET						
STATIC PARAMETERS						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =250μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =16V,V _{GS} = 0V			100	nA
Gate-body leakage current	I _{GSS}	V _{GS} =±5V, V _{DS} = 0V			±1	uA
Gate threshold voltage (note 3)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.44		1.1	V
Drain-source on-resistance(note 3)	R _{DS(on)}	V _{GS} =4.5V, I _D =0.55A		250	600	mΩ
		V _{GS} =2.5V, I _D =0.5A		330	650	mΩ
		V _{GS} =1.8V, I _D =0.35A		550	700	mΩ
Diode forward voltage (note 3)	V _{SD}	I _S =0.35A, V _{GS} = 0V	0.5		1.1	V
DYNAMIC PARAMETERS (note 4)						
Input Capacitance	C _{iss}	V _{DS} =10V,V _{GS} =0V,f =100KHz		61		pF
Output Capacitance	C _{oss}			17		pF
Reverse Transfer Capacitance	C _{rss}			10		pF
SWITCHING PARAMETERS (note 4)						
Turn-on delay time	t _{d(on)}	V _{GEN} =4.5V,V _{DD} =10V, I _D =500mA,R _{GEN} =6Ω R _L =10 Ω		33		ns
Turn-on rise time	t _r			102		ns
Turn-off delay time	t _{d(off)}			790		ns
Turn-off fall time	t _f			439		ns
Total Gate Charge	Q _g	V _{DS} =10V,V _{GS} =4.5V I _D =0.6A		1.15		nC
Gate-Source Chage	Q _{gs}			0.15		nC
Gage-Drain Charge	Q _{gd}			0.23		nC

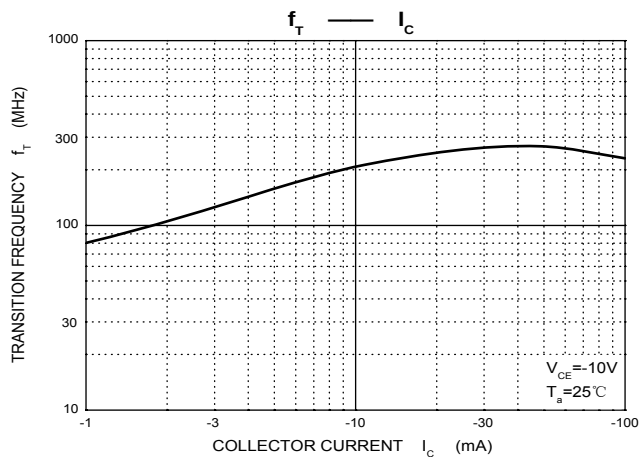
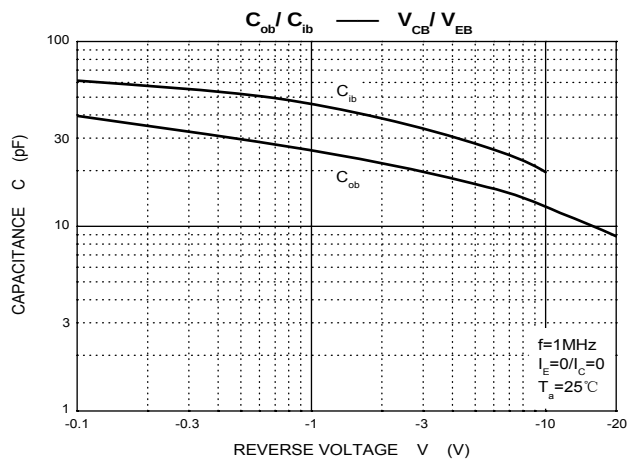
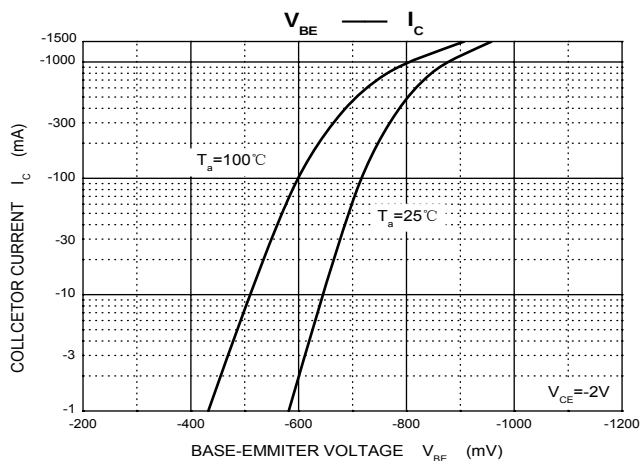
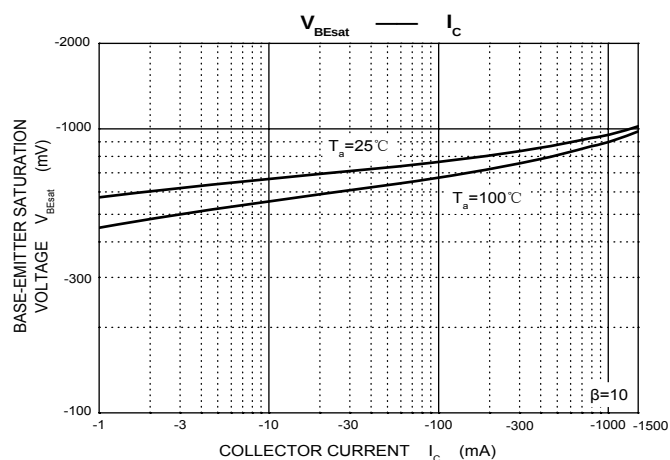
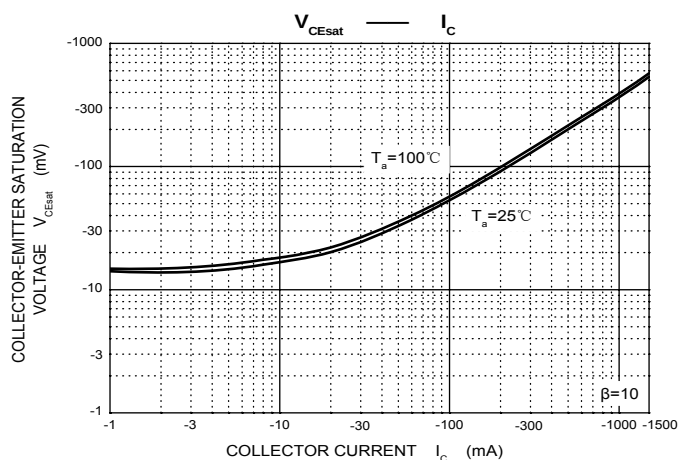
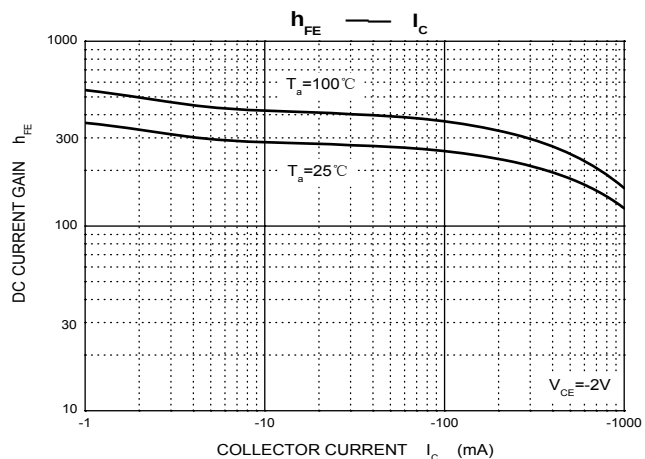
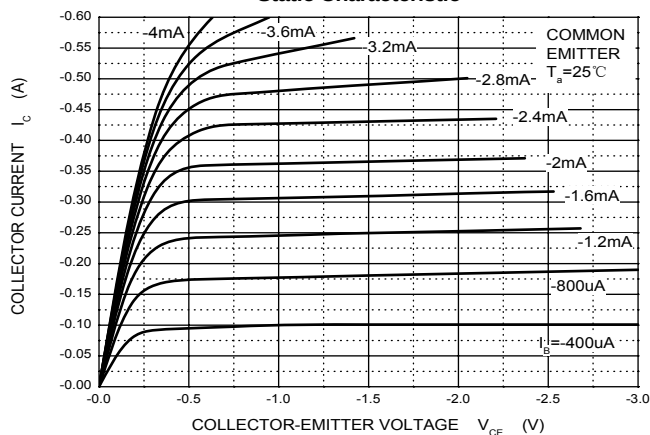
Notes :

- 1.Surface mounted on FR4 board using 1 square inch pad size,1oz copper.
- 2.Surface mounted on FR4 board using the minimum pad size,1oz copper.
3. Pulse test : Pulse width=300 μs , duty cycle $\leq 2\%$.
4. These parameters have no way to verify.

Typical Characteristics

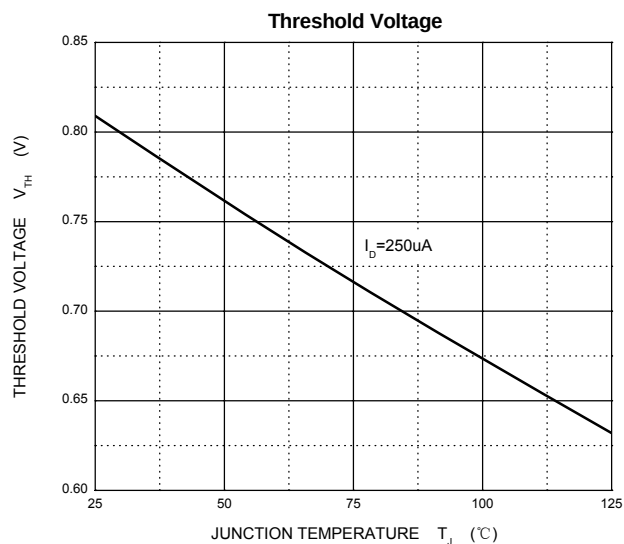
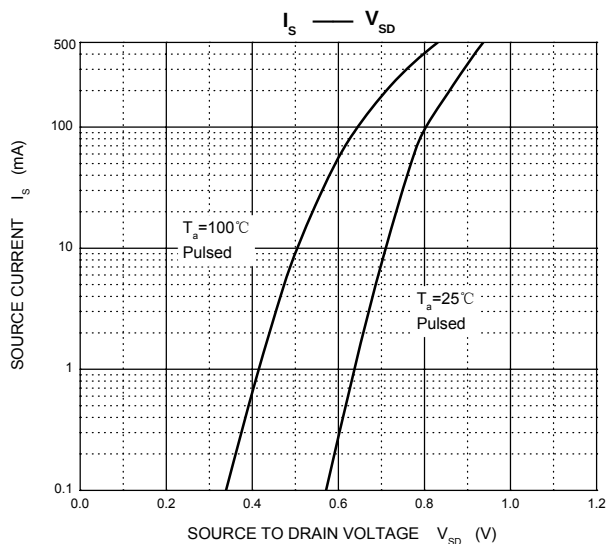
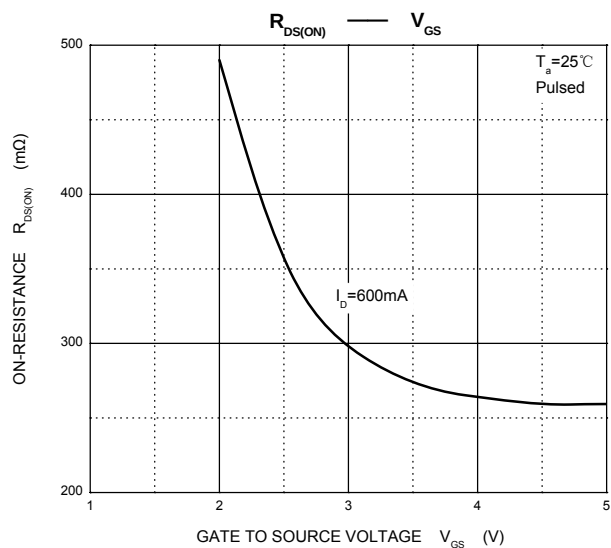
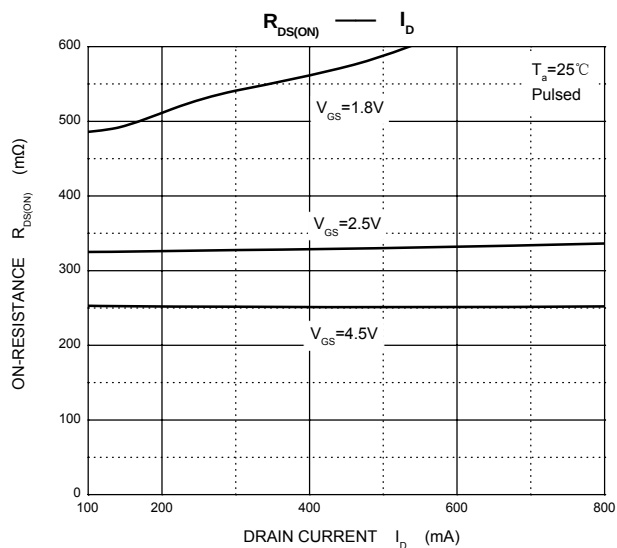
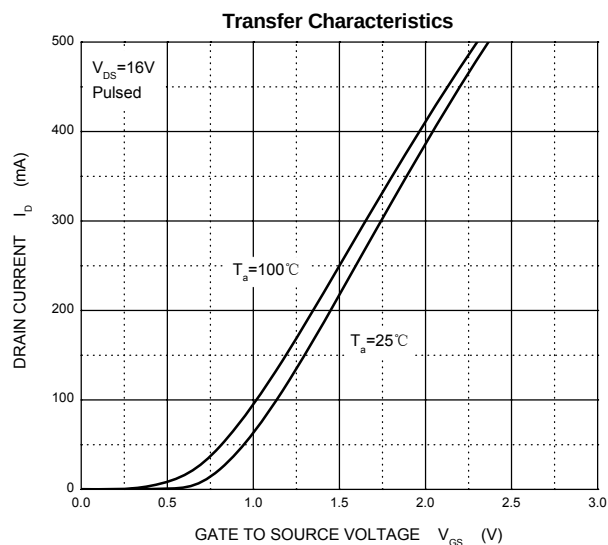
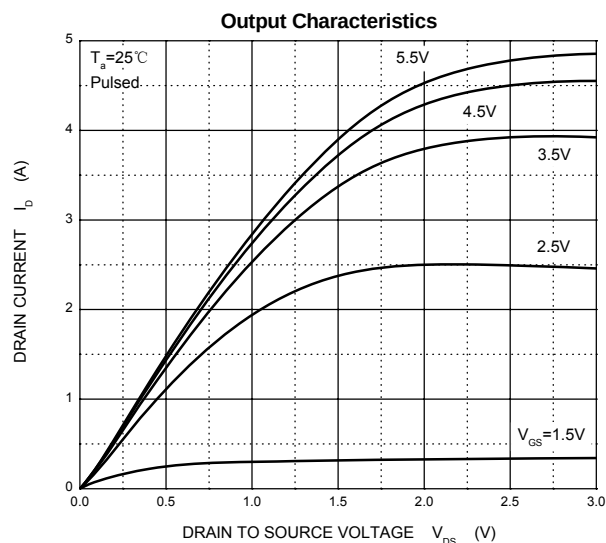
PNP Transistor

Static Characteristic

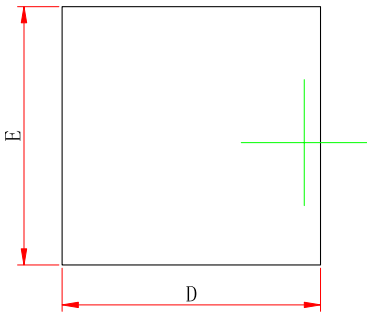


Typical Characteristics

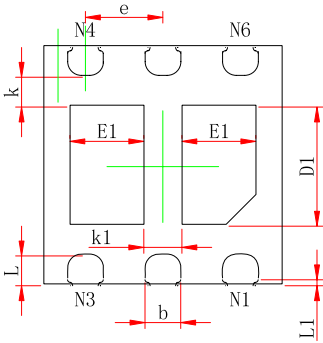
N-channel Characteristics



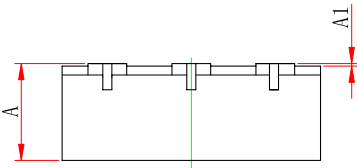
WBHFBP-06L-F Package Outline Dimensions



TOP VIEW
[顶视图]



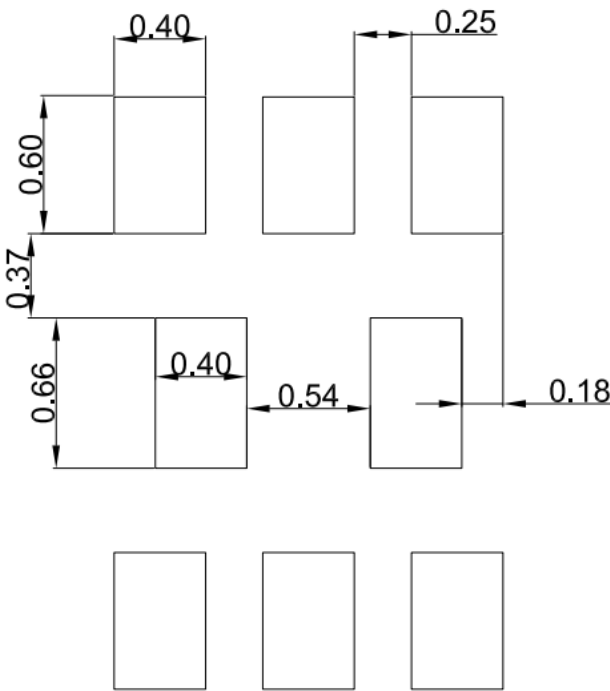
BOTTOM VIEW
[背视图]



SIDE VIEW
[侧视图]

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.800	0.028	0.031
A1	0.000	0.050	0.000	0.002
D	1.950	2.050	0.077	0.081
E	1.950	2.050	0.077	0.081
D1	0.900	1.100	0.035	0.043
E1	0.520	0.720	0.020	0.028
b	0.250	0.350	0.010	0.014
e	0.600	0.700	0.024	0.028
k	0.200MIN.		0.008MIN.	
k1	0.320REF.		0.013REF.	
L	0.200	0.300	0.008	0.012
L1	0.050REF.		0.002REF.	

WBHFBP-06L-F Suggested Pad Layout



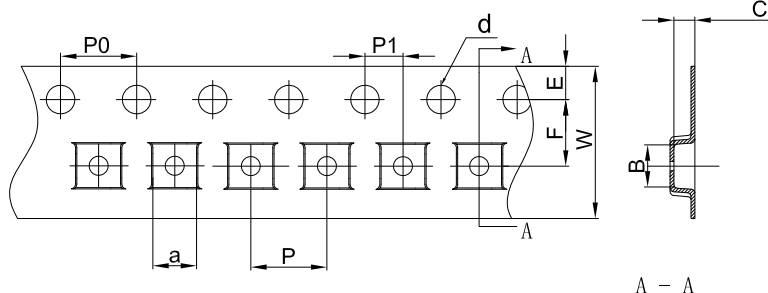
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.050mm.
3.The pad layout is for reference purposes only.

NOTICE

JSCJ reserves the right to make modifications,enhancements,improvements,corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

WBHFBP-06L-F Tape and Reel

WBHFBP-06L-F Embossed Carrier Tape

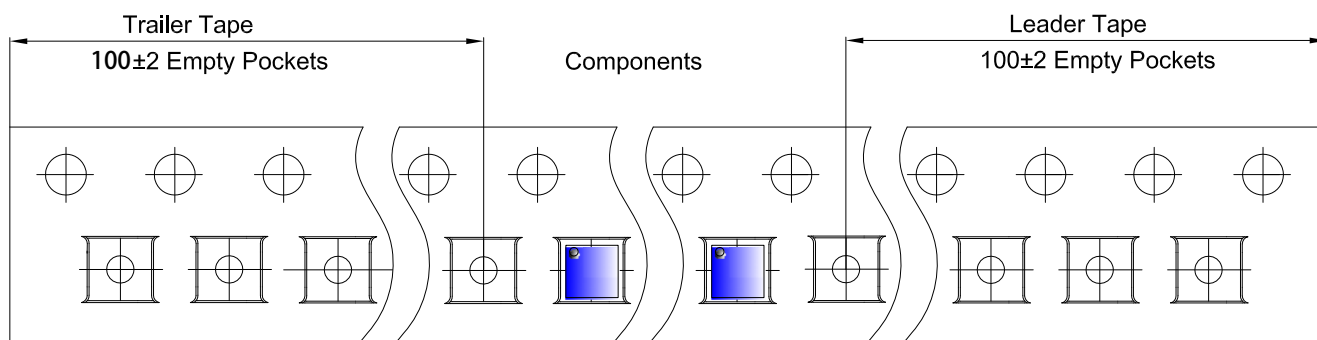


Packaging Description:

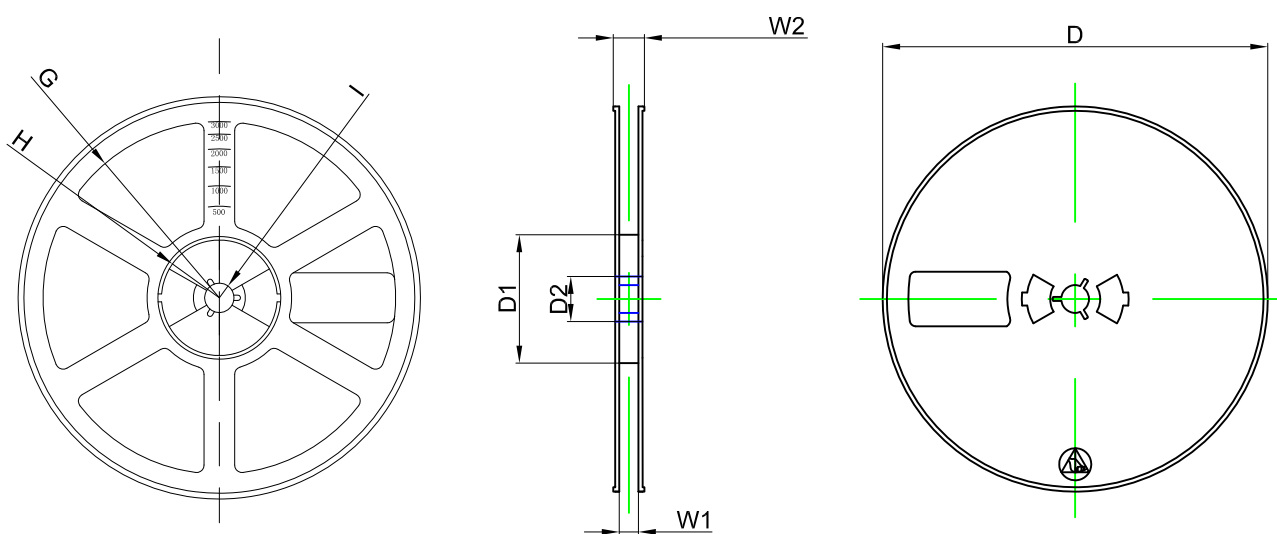
WBHFBP-06L-F parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 18.0cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	a	B	C	d	E	F	P0	P	P1	W
DFNWB2×2-6L	2.30	2.30	1.10	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

WBHFBP-06L-F Tape Leader and Trailer



WBHFBP-06L-F Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	13.00	R78.00	R25.60	R6.50	9.50	13.10

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	30,000 pcs	203×203×195	120,000 pcs	438×438×220	