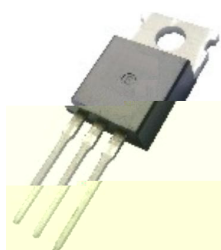
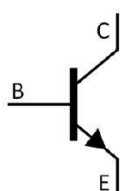


TIP31

WR0553

QSQ

WLS65



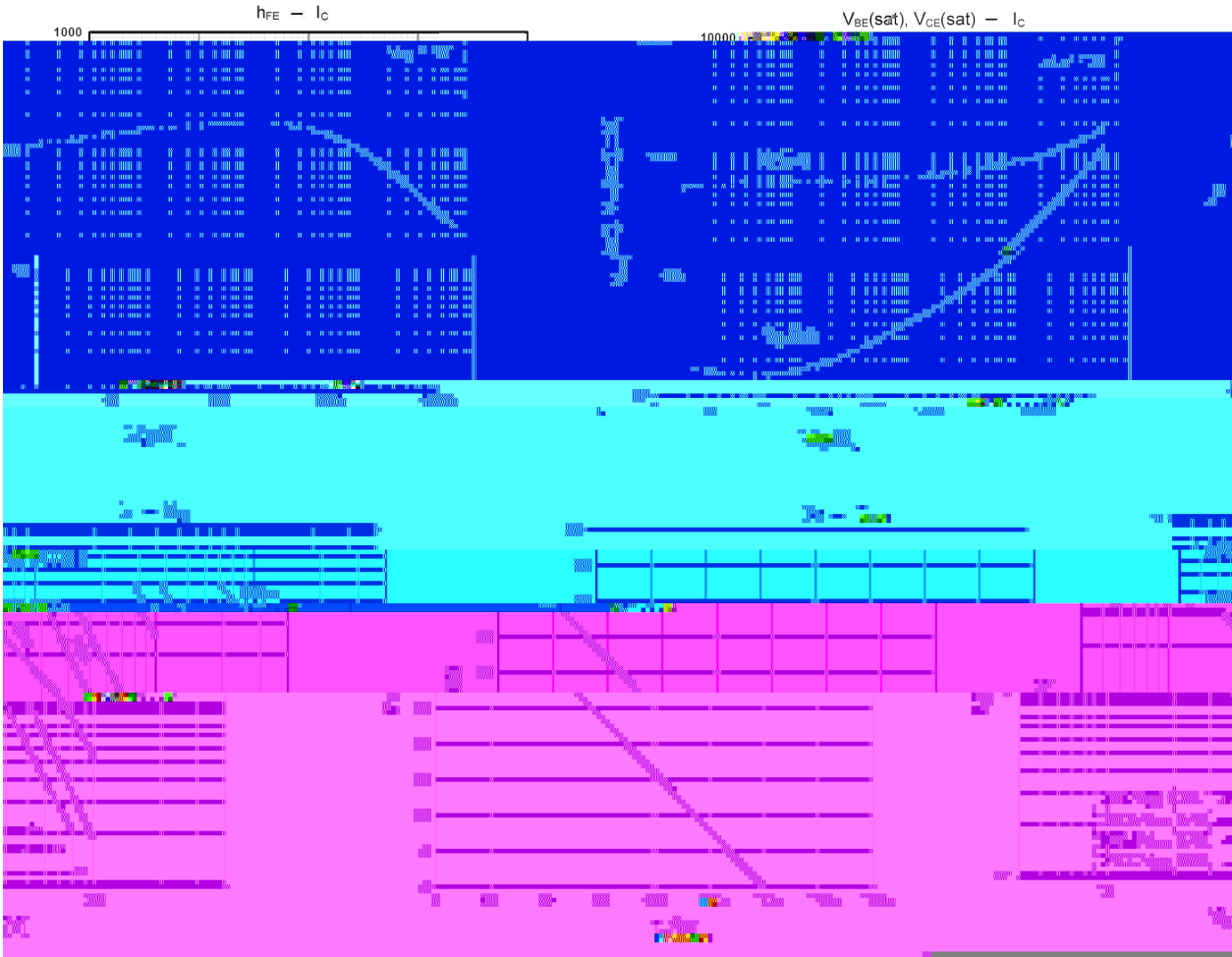
/ h_{FE} Classifications & Marking

/ Absolute Maximum Ratings(Ta=25)

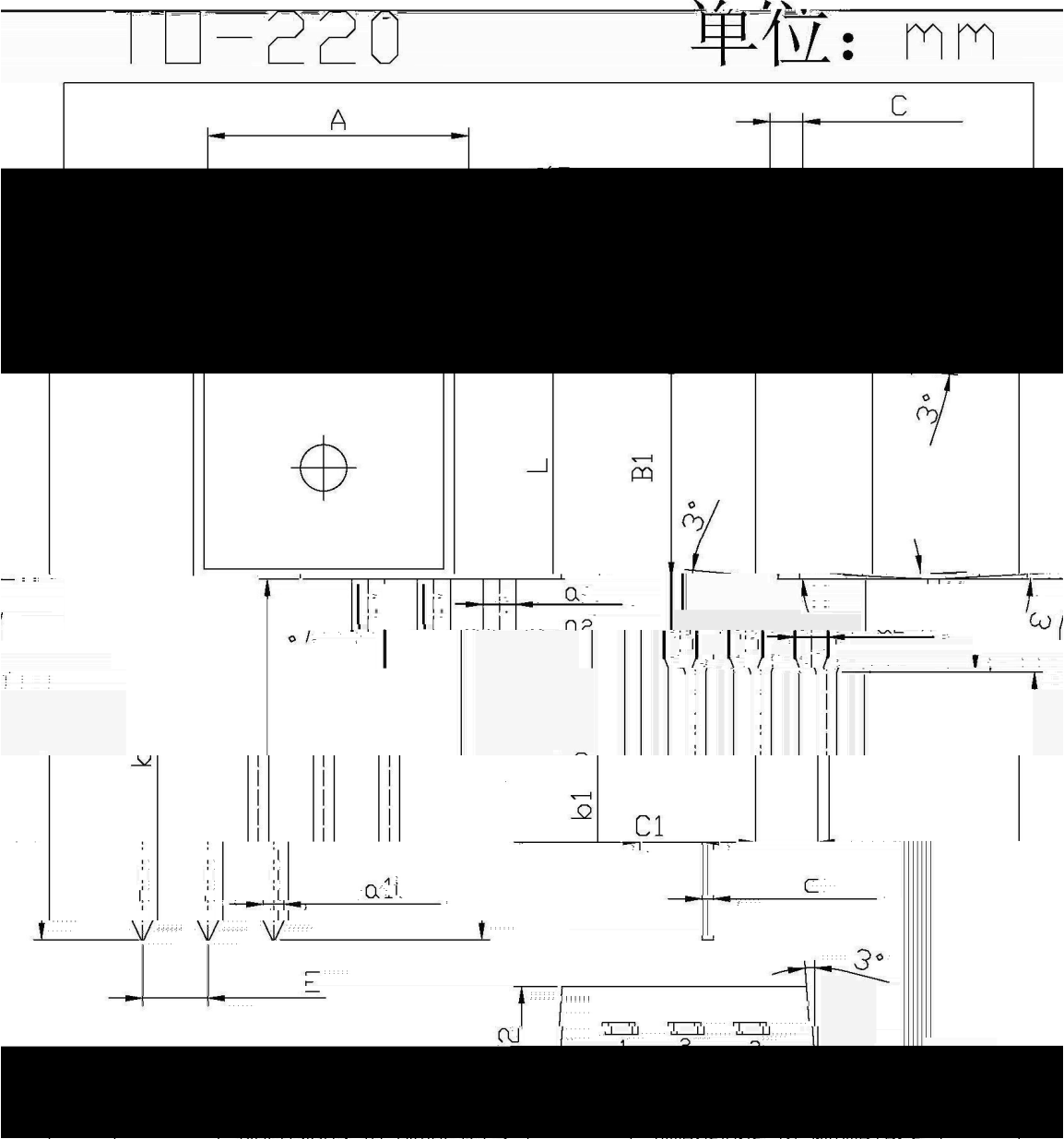
/ Electrical Characteristics(Ta=25)

						μ

/ Electrical Characteristic Curve

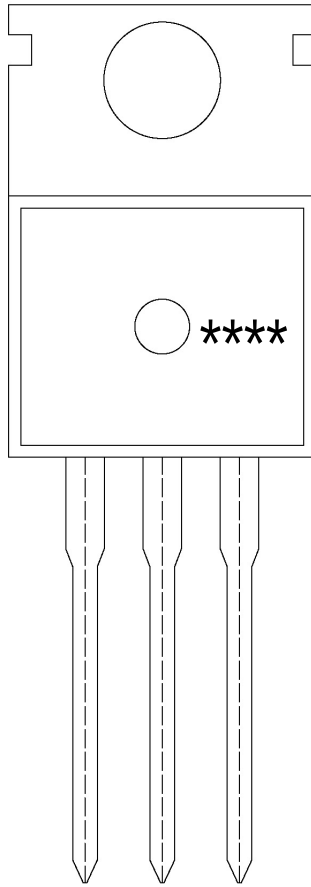


/ Package Dimensions



DIMENSIONS IN MILLIMETERS			DIMENSIONS IN MILLIMETERS		
Symbol	Min	Max	Symbol	Min	Max
A	1.4	1.6	C	10.2	12.7
B1	16.1	16.3	B	16.3	15.7
a	1.22	1.32	a1	0.4	0.6
b1	1.25	1.45			

/ Marking Instructions



() / Temperature Profile for Dip Soldering(Pb-Free)



$\frac{3}{8}$

2 $\frac{3}{8}$

$\frac{3}{8}$

2

$\frac{3}{8}$

2 $\frac{3}{8}$

$\frac{3}{8}$

2

/ Resistance to Soldering Heat Test Conditions

2 $\frac{3}{8}$

2

/ Packaging SPEC.

	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices