

Electrical Characteristics* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{CEO(sus)}$	Collector-Emitter Sustaining Voltage : TIP105 : TIP106 : TIP107	$I_C = -30\text{mA}, I_B = 0$	-60 -80 -100			V V V
I_{CEO}	Collector Cut-off Current : TIP105 : TIP106 : TIP107	$V_{CE} = -30\text{V}, I_B = 0$ $V_{CE} = -40\text{V}, I_B = 0$ $V_{CE} = -50\text{V}, I_B = 0$			-50 -50 -50	μA μA μA
I_{CBO}	Collector Cut-off Current : TIP105 : TIP106 : TIP107	$V_{CB} = -60\text{V}, I_E = 0$ $V_{CB} = -80\text{V}, I_E = 0$ $V_{CB} = -100\text{V}, I_E = 0$			-50 -50 -50	μA μA μA
I_{EBO}	Emitter Cut-off Current	$V_{BE} = -5\text{V}, I_C = 0$			-2	mA
h_{FE}	DC Current Gain	$V_{CE} = -4\text{V}, I_C = -3\text{A}$ $V_{CE} = -4\text{V}, I_C = -8\text{A}$	1000 200		20000	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}, I_B = -6\text{mA}$ $I_C = -8\text{A}, I_B = -8\text{mA}$			-2 -2.5	V V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -4\text{V}, I_C = -8\text{A}$			-2.8	V
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 0.1\text{MHz}$			300	pF

* Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

勝特力材料 886-3-5753170
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[Http://www.100y.com.tw](http://www.100y.com.tw)

Typical Characteristics

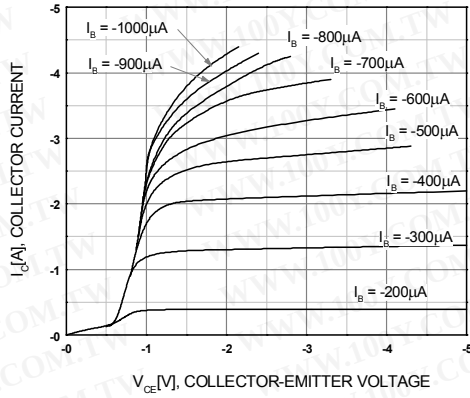


Figure 1. Static Characteristic

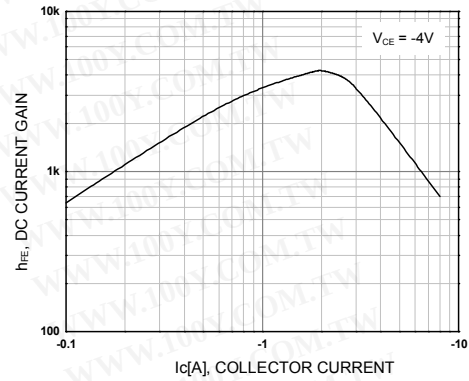


Figure 2. DC current Gain

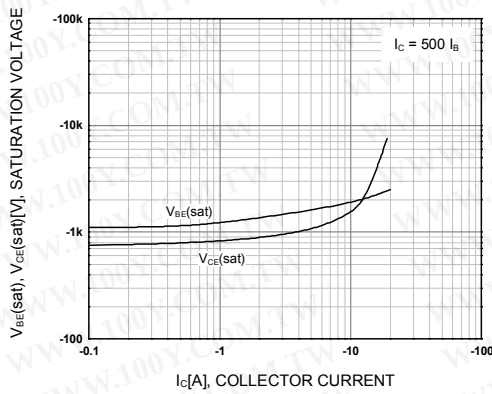


Figure 3. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

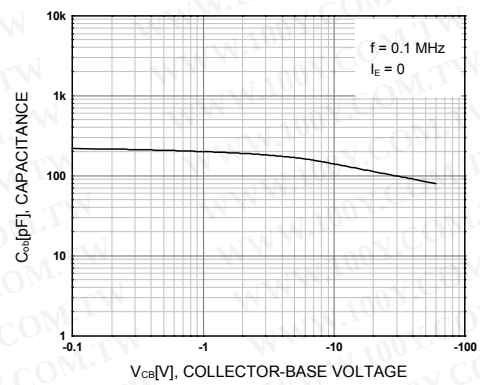


Figure 4. Collector Output Capacitance

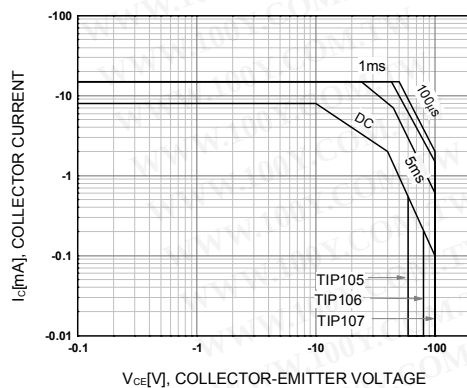


Figure 5. Safe Operating Area

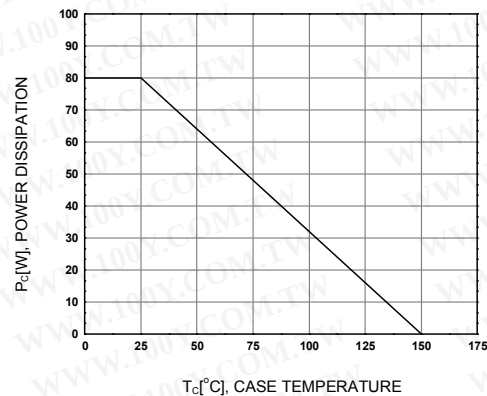
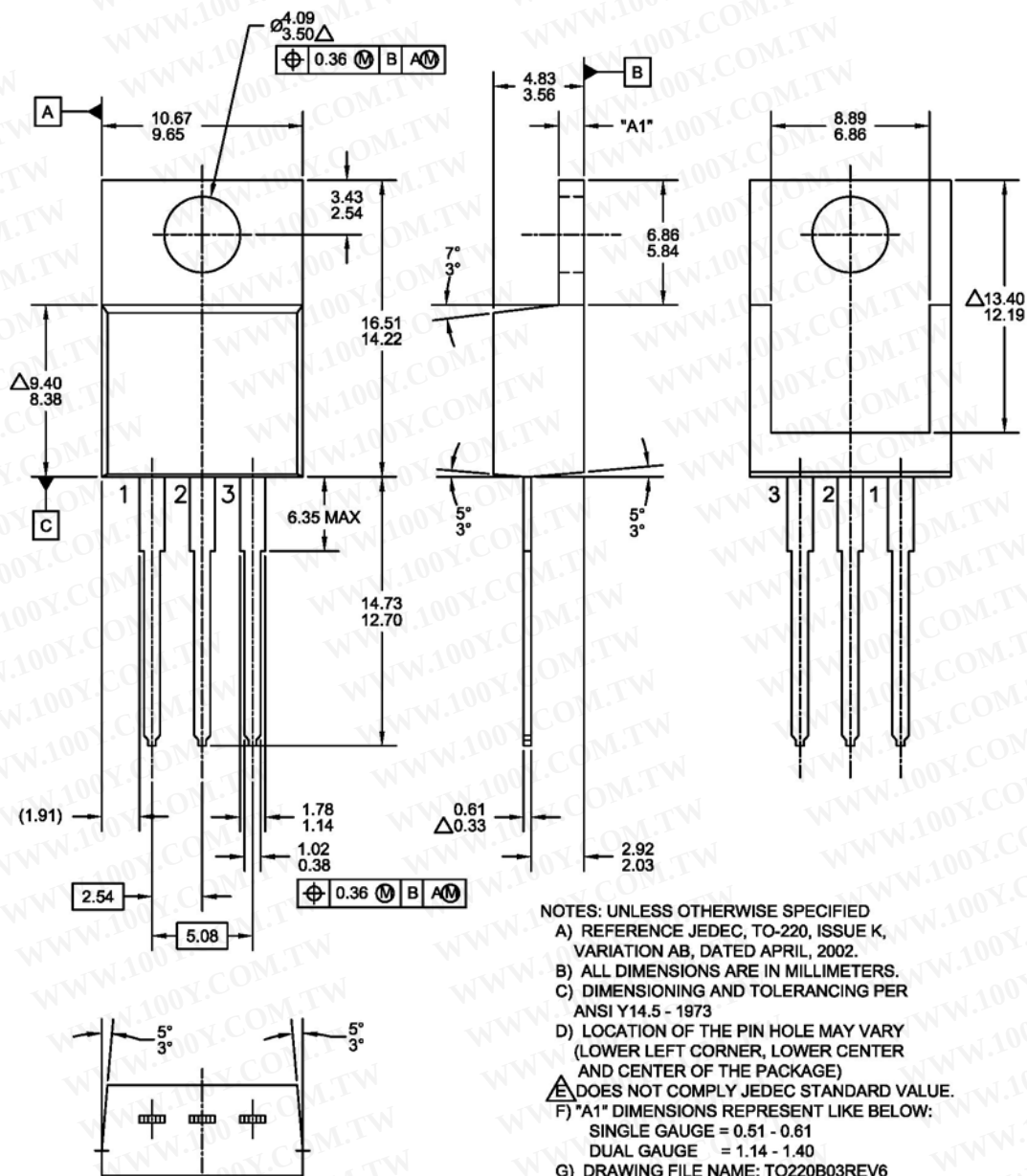


Figure 6. Power Derating

Mechanical Dimensions

TO220

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NOTES: UNLESS OTHERWISE SPECIFIED

A) REFERENCE JEDEC, TO-220, ISSUE K,
VARIATION AB, DATED APRIL, 2002.

B) ALL DIMENSIONS ARE IN MILLIMETERS.

C) DIMENSIONING AND TOLERANCING PER
ANSI Y14.5 - 1973

D) LOCATION OF THE PIN HOLE MAY VARY
(LOWER LEFT CORNER, LOWER CENTER
AND CENTER OF THE PACKAGE)

△ DOES NOT COMPLY JEDEC STANDARD VALUE.

F) "A1" DIMENSIONS REPRESENT LIKE BELOW:

SINGLE GAUGE = 0.51 - 0.61

DUAL GAUGE = 1.14 - 1.40

G) DRAWING FILE NAME: TO220B03REV6