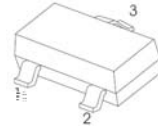


TRANSISTOR (NPN)

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



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

	Collector-Base Voltage	75	V
	Collector-Emitter Voltage	40	V
	Emitter-Base Voltage	6	V
	Collector Current -Continuous	600	mA
	Collector Dissipation	300	mW
e	Thermal Resistance, Junction to Ambient	417	$^{\circ}\text{C}/\text{W}$
	Junction Temperature	50	$^{\circ}\text{C}$
	Storage Temperature	-55~+150	$^{\circ}\text{C}$

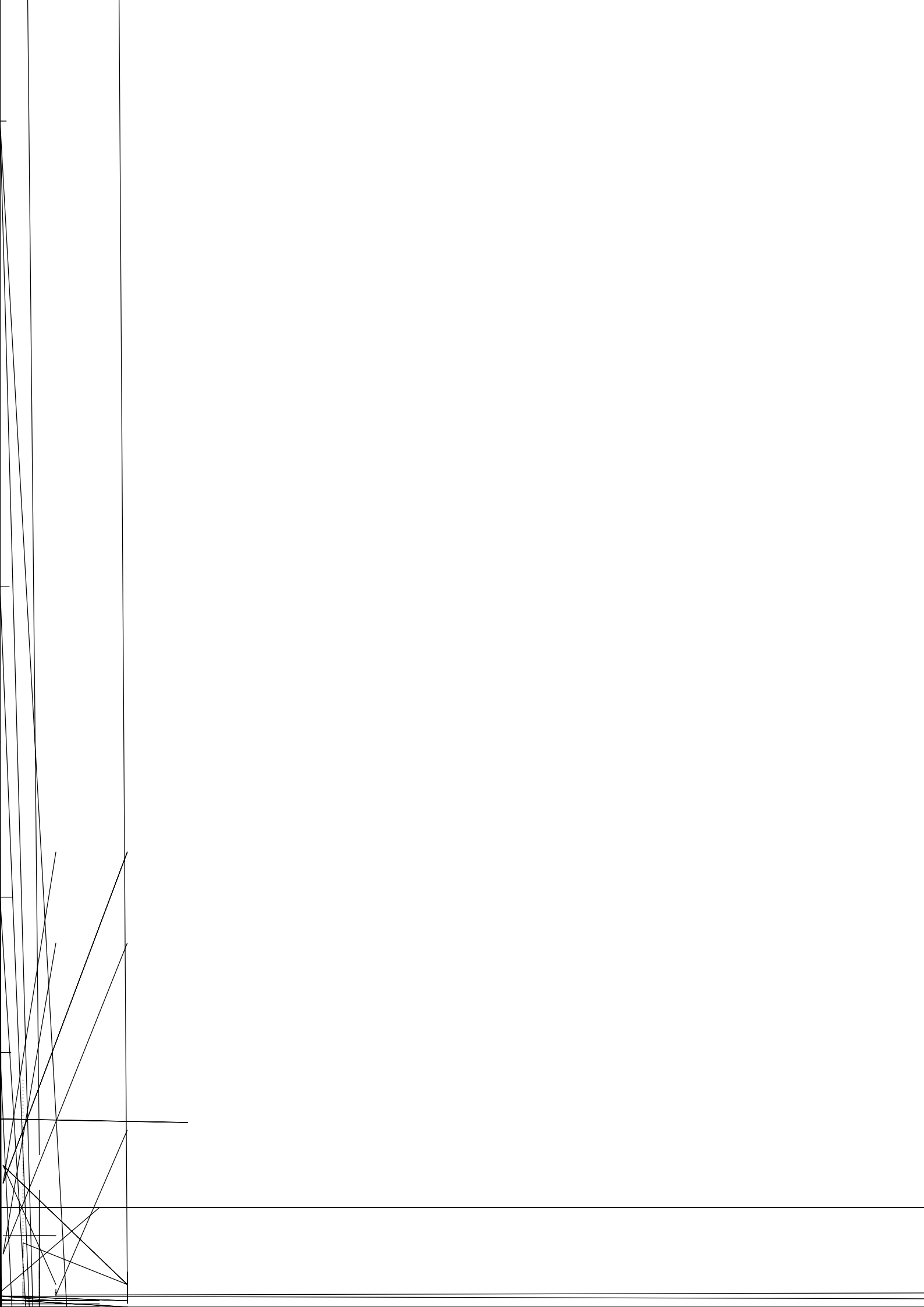
$^{\circ}\text{C}$

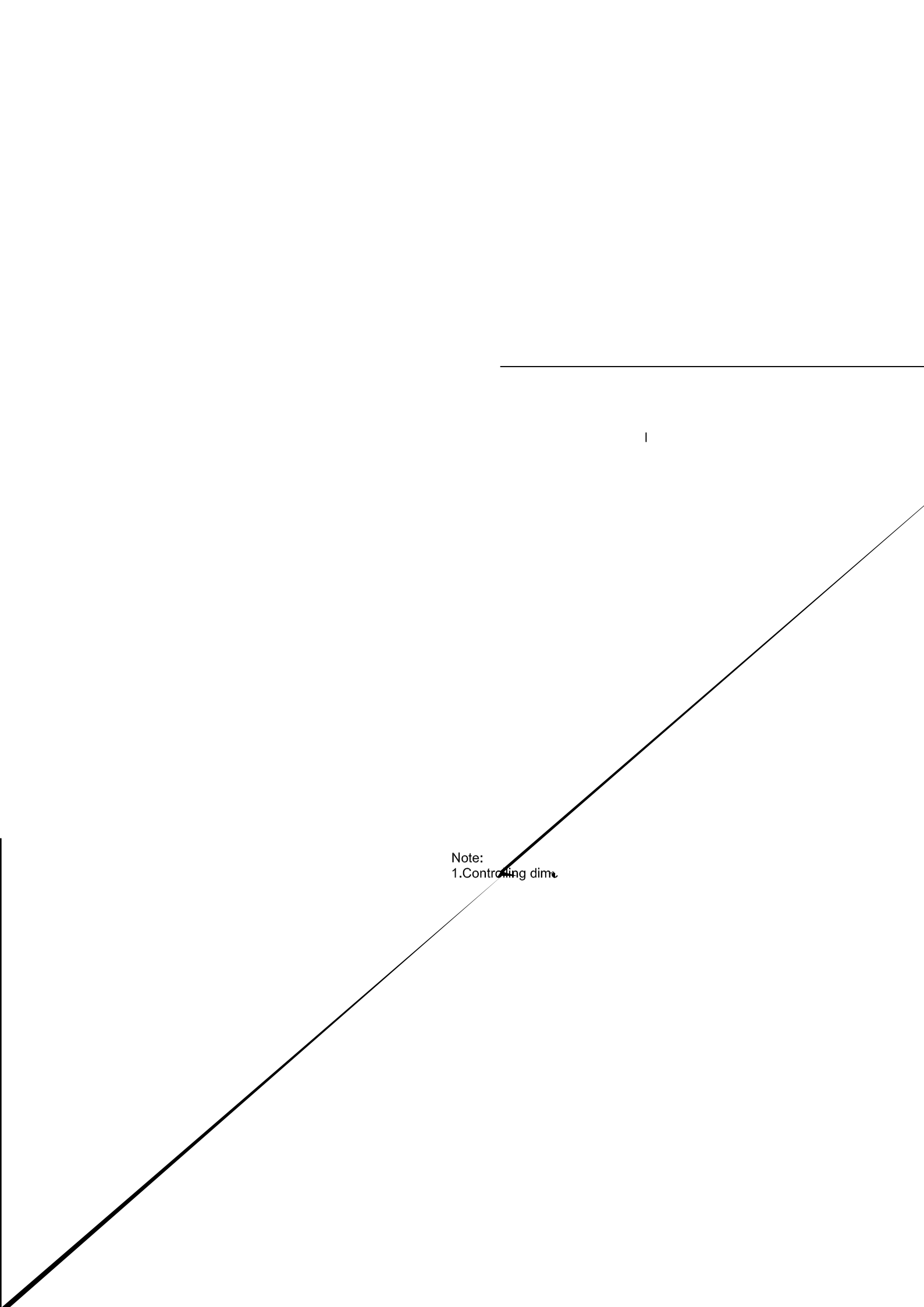
			in	yp	ax	Unit
	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	75			V
	$V_{(BR)CEO}^*$	$I_C=10\text{mA}, I_B=0$	40			V
	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
	$I_{CBO}$	$V_{CB}=60\text{V}, I_E=0$			0.01	$\mu\text{A}$
	$I_{CEX}$	$V_{CE}=30\text{V}, V_{BE(off)}=3\text{V}$			0.01	$\mu\text{A}$
	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$			0.1	$\mu\text{A}$
	$h_{FE(1)}^*$	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100		300	
	$h_{FE(2)}$	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	40			
	$h_{FE(3)}^*$	$V_{CE}=10\text{V}, I_C=500\text{mA}$	42			
	$V_{CE(sat)}^*$	$I_C=500\text{mA}, I_B=50\text{mA}$ $I_C=150\text{mA}, I_B=15\text{mA}$			1 0.3	V
	$V_{BE(sat)}^*$	$I_C=500\text{mA}, I_B=50\text{mA}$ $I_C=150\text{mA}, I_B=15\text{mA}$			2.0 1.2	V
	$f_T$	$V_{CE}=20\text{V}, I_C=20\text{mA},$ $f=100\text{MHz}$	300			MHz
	$t_d$	$V_{CC}=30\text{V}, V_{BE(off)}=-0.5\text{V}$ $I_C=150\text{mA}, I_{B1}=15\text{mA}$			10	ns
	$t_r$				25	ns
	$t_s$	$V_{CC}=30\text{V}, I_C=150\text{mA}$			225	ns
	$t_f$	$I_{B1}=-I_{B2}=15\text{mA}$			60	ns

\*pulse test: Pulse Width 300 $\mu\text{s}$ , Duty Cycle 2.0%.

CLASSIFICATION OF  $h_{FE(1)}$

RANK	L	H
RANGE	100 200	200 300
MARKING	1D	





Note:  
1. Controlling dimension

—  
2000  
1  
—1000  
—500