

**TO-251/TO-252-2L Plastic-Encapsulate Transistors****2SB1261-Z** TRANSISTOR (PNP)**FEATURES**

- High h_{FE} $h_{FE}=100$ to 400
- Low $V_{CE(sat)}$ $V_{CE(sat)} \leq 0.3V$

MAXIMUM RATINGS ($T_A=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current -Continuous	-3	A
P_D	Collector Power Dissipation	2	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$

**TO-251
TO-252-2L**

1. BASE

2. COLLECTOR

3. EMITTER

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ C$ unless otherwise specified)

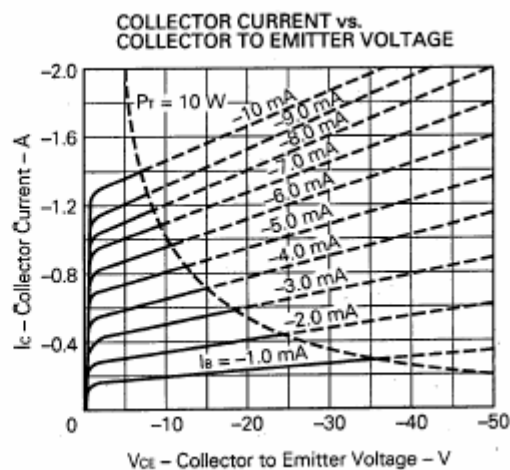
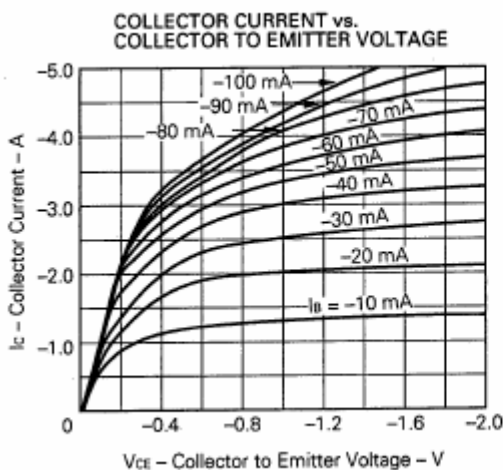
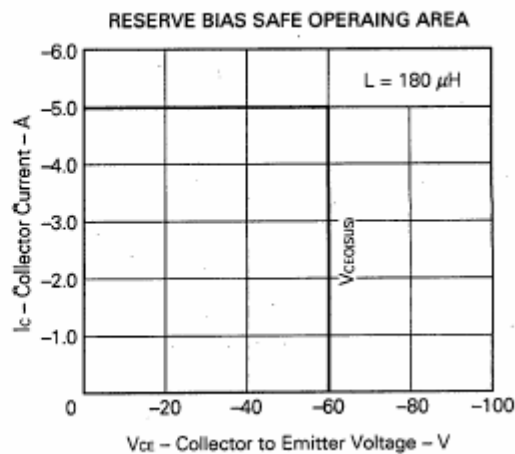
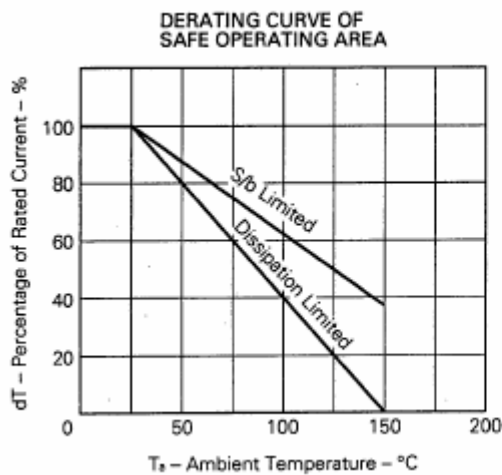
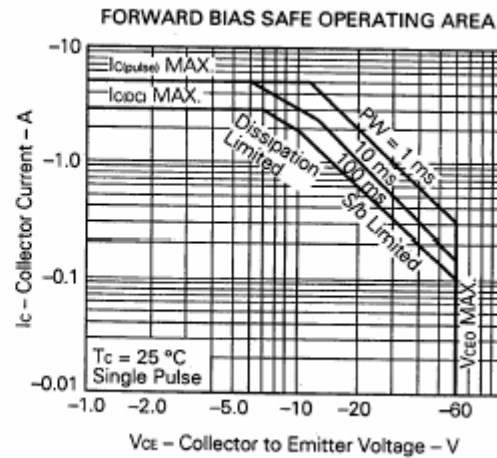
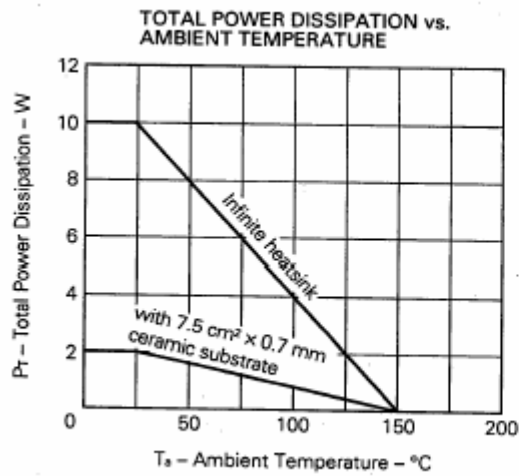
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-7			V
Collector cut-off current	I_{CBO}	$V_{CB}=-60V, I_E=0$			-10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-7V, I_C=0$			-10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-2V, I_C=-200mA$	60			
	$h_{FE(2)}$	$V_{CE}=-2V, I_C=-600mA$	100		400	
	$h_{FE(3)}$	$V_{CE}=-2V, I_C=-2A$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-1.5A, I_B=-150mA$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-1.5A, I_B=-150mA$			-1.2	V
Transition frequency	f_T	$V_{CE}=-5V, I_C=-1.5A$		50		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$		40		pF
Switching Time	Turn on Time	$V_{CC}=-10V, I_C=-1A, I_{B1}=-I_{B2}=-0.1A, R_L=10\Omega$		0.5		μs
	Storage Time			2.0		
	Fall Time			0.5		

CLASSIFICATION OF $h_{FE(1)}$

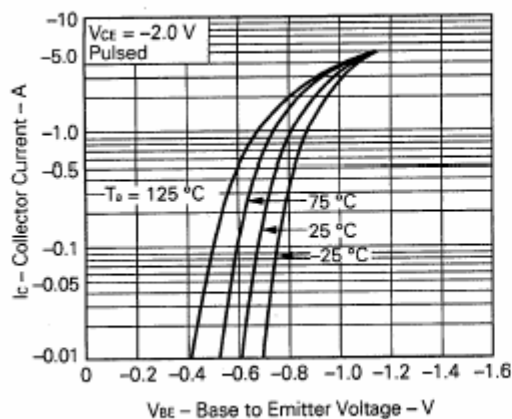
Rank	M	L	K
Range	100-200	160-320	200-400

Typical Characteristics

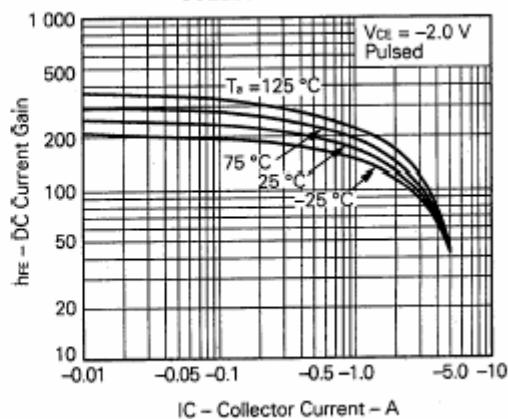
2SB1261-Z



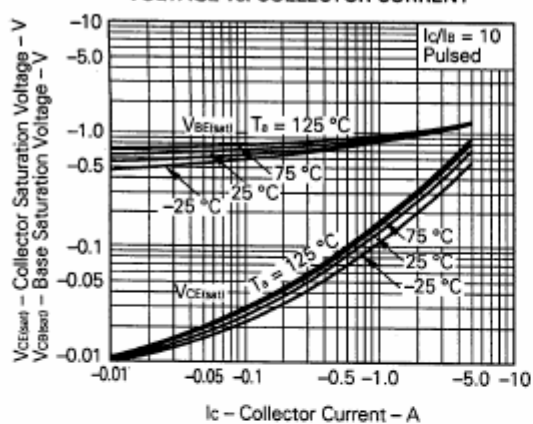
COLLECTOR CURRENT vs.
BASE TO EMITTER VOLTAGE



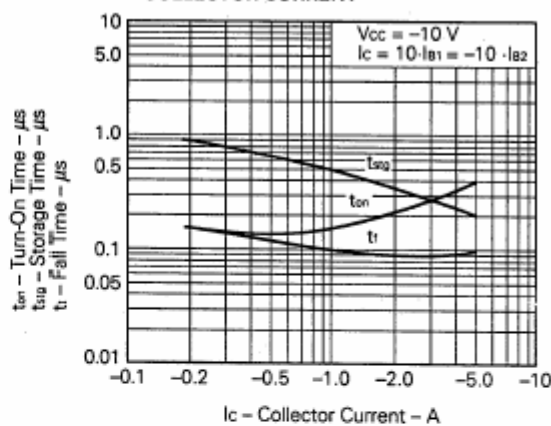
DC CURRENT GAIN vs.
COLLECTOR CURRENT



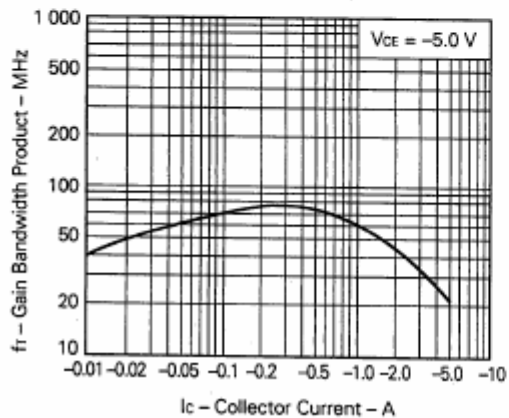
BASE AND COLLECTOR SATURATION
VOLTAGE vs. COLLECTOR CURRENT



FALL, STORAGE AND TURN-ON TIME vs.
COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs.
COLLECTOR CURRENT



OUTPUT CAPACITANCE vs.
COLLECTOR TO BASE VOLTAGE

