

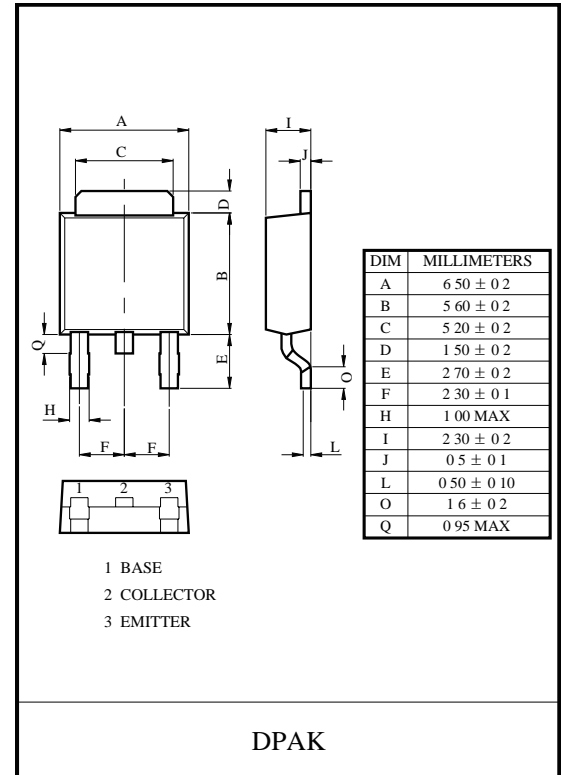
FTB1261 TRANSISTOR (PNP)

FEATURES

- Low $V_{CE(sat)}$
- High DC Current Gain

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

Symbol	Parameter	Value	Unit
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	-3	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	$^\circ\text{C/W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-7			V
Collector cut-off current	I_{CBO}	$V_{CB}=-60\text{V}, I_E=0$			-10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-7\text{V}, I_C=0$			-10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-2\text{V}, I_C=-200\text{mA}$	60			
	$h_{FE(2)}$	$V_{CE}=-2\text{V}, I_C=-600\text{mA}$	100		400	
	$h_{FE(3)}$	$V_{CE}=-2\text{V}, I_C=-2\text{A}$		50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-1.5\text{A}, I_B=-150\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-1.5\text{A}, I_B=-150\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE}=-5\text{V}, I_C=-1.5\text{A}$		50		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-1.0\text{V}, I_E=0, f=1\text{MHz}$		40		pF
Switching Time	Turn on Time	$V_{CC}=-10\text{V}, I_C=-1\text{A}, I_{B1}=-I_{B2}=-0.1\text{A}$		0.15	0.5	μs
	Storage Time			0.5	2.0	
	Fall Time			0.1	0.5	

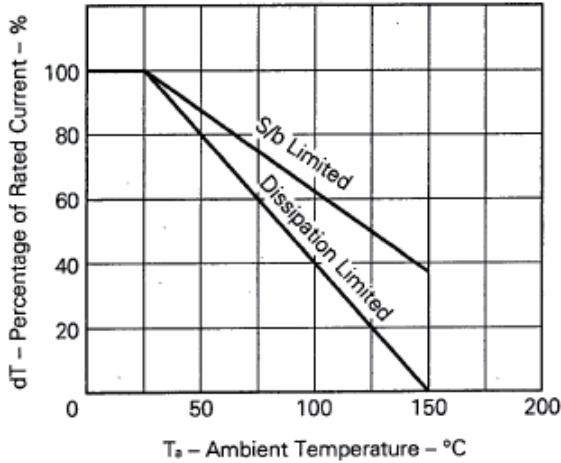
*Pulse test: pulse width $\leq 350\mu\text{s}$, duty cycle $\leq 2.0\%$.

CLASSIFICATION OF $h_{FE(2)}$

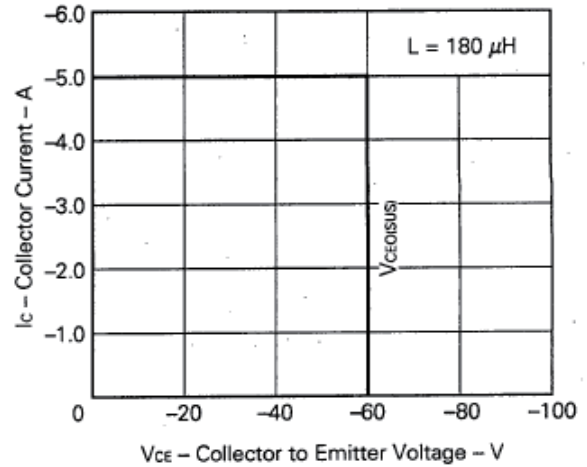
RANK	M	L	K
RANGE	100-200	160-320	200-400

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

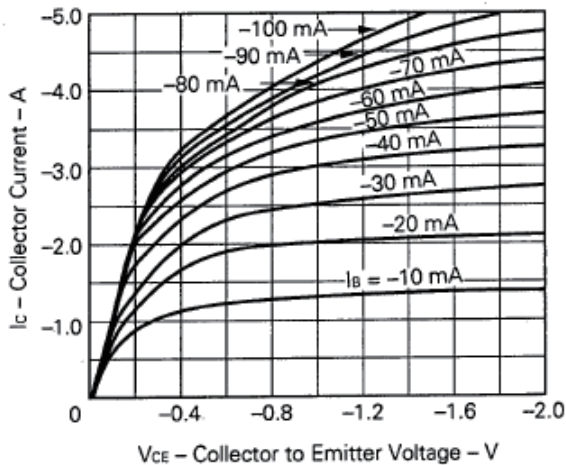
DERATING CURVE OF SAFE OPERATING AREA



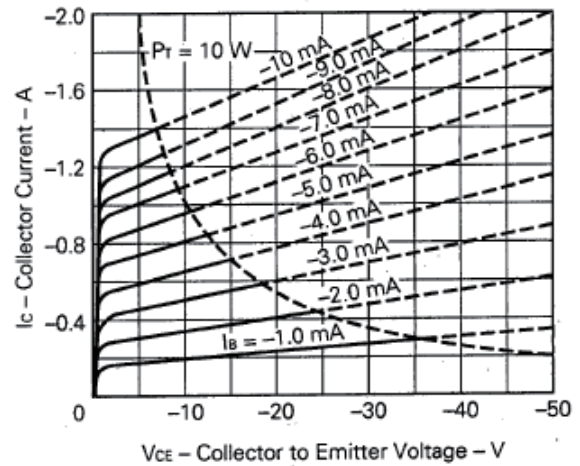
RESERVE BIAS SAFE OPERATING AREA



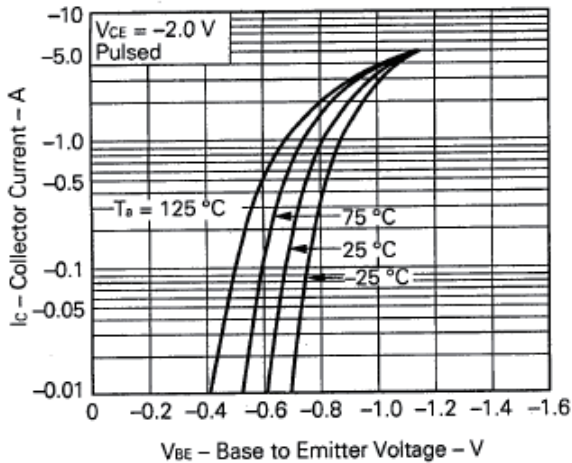
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT

