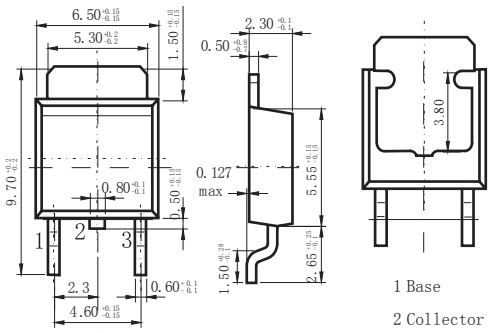
NPN Transistors

2SD2121

TO-252

Unit: mm



■ Features

- Low frequency power amplifier
- Complementary to 2SB1407

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	35	V
Collector - Emitter Voltage	V_{CEO}	35	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	2.5	A
Collector Current - Pulse	I_{CP}	3	
Collector Power Dissipation	P_C	18	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 1 mA, I_E= 0	35			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 10 mA, R_{BE}= ∞	35			
Emitter - base breakdown voltage	V_{EBO}	I_E= 1 mA, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 35 V , I_E= 0			20	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2 A, I_B=200mA			1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=2 A, I_B=200mA			1.2	
Base - emitter voltage	V_{BE}	V_{CE}= 2V, I_C= 1.5 A			1.5	
DC current gain	h_{FE}	V_{CE}= 2 V, I_C= 500mA	60		320	
		V_{CE}= 2V, I_C= 1.5 A	20			

■ Classification of $h_{fe(1)}$

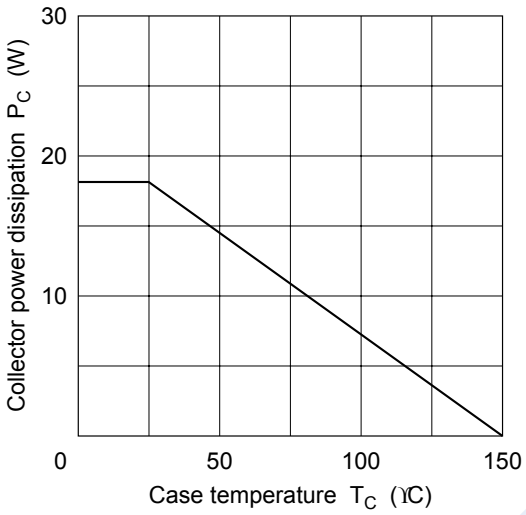
Type	2SD2121-B	2SD2121-C	2SD2121-D
Range	60-120	100-200	160-320

NPN Transistors

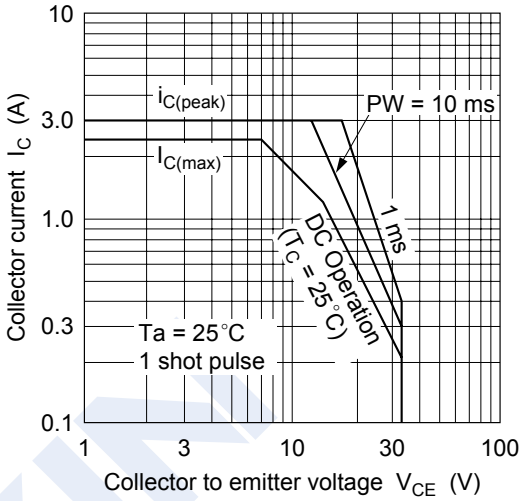
2SD2121

■ Typical Characterisitics

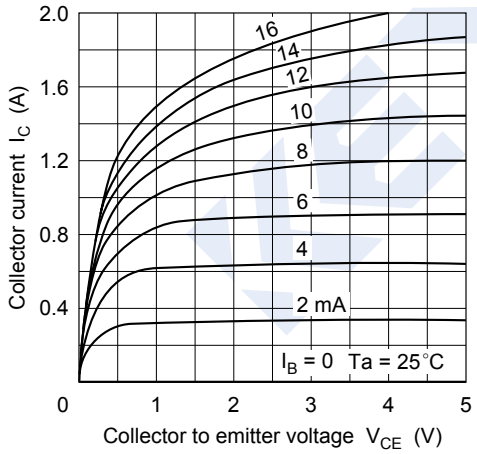
Maximum Collector Dissipation Curve



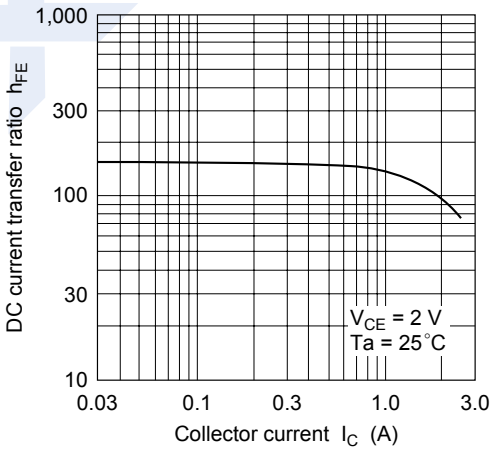
Area of Safe Operation



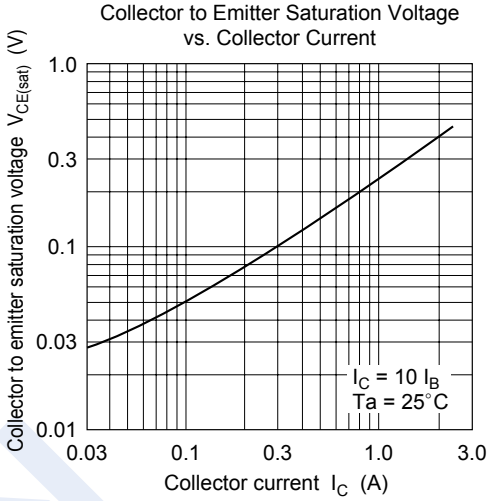
Typical Output Characteristics



DC Current Transfer Ratio
vs. Collector Current



Collector to Emitter Saturation Voltage
vs. Collector Current



Typical Transfer Characteristics