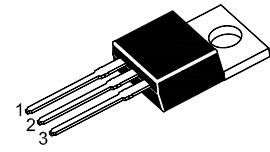


2SD526

NPN Epitaxial Silicon Power Transistor

for power amplifier applications



1.Base 2.Collector 3.Emitter
TO-220 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	80	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	4	A
Base Current	I_B	0.4	A
Power Dissipation ($T_c = 25\text{ }^\circ\text{C}$)	P_C	30	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 0.5\text{ A}$ at $V_{CE} = 5\text{ V}$, $I_C = 3\text{ A}$	Current Gain Group R O Y	h_{FE}	40	-	80	-
		h_{FE}	70	-	140	-
		h_{FE}	120	-	240	-
		h_{FE}	15	-	-	-
Collector Base Cutoff Current at $V_{CB} = 80\text{ V}$	I_{CBO}	-	-	30	μA	
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	100	μA	
Collector Emitter Breakdown Voltage at $I_C = 50\text{ mA}$	$V_{(BR)CEO}$	80	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 10\text{ mA}$	$V_{(BR)EBO}$	5	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 3\text{ A}$, $I_B = 300\text{ mA}$	$V_{CE(sat)}$	-	-	1.5	V	
Base Emitter On Voltage at $V_{CE} = 5\text{ V}$, $I_C = 3\text{ A}$	$V_{BE(on)}$	-	-	1.5	V	
Transition Frequency at $V_{CE} = 5\text{ V}$, $I_C = 0.5\text{ A}$	f_T	3	-	-	MHz	
Collector Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	90	-	pF	

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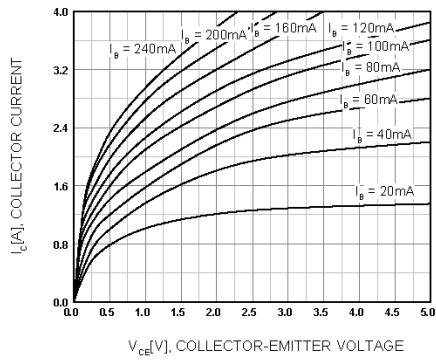


Figure 1. Static Characteristic

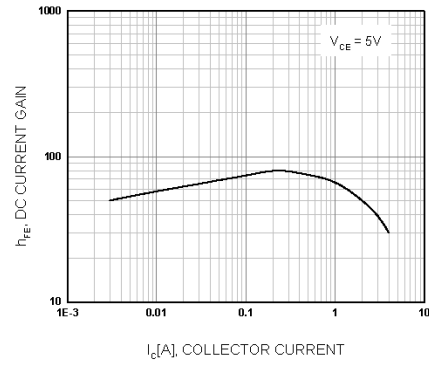


Figure 2. DC current Gain

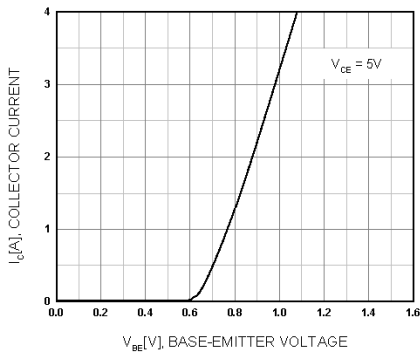


Figure 3. Base-Emitter On Voltage

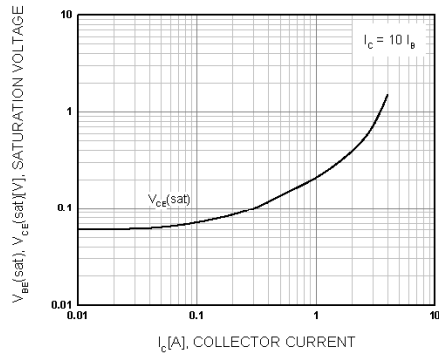


Figure 4. Collector-Emitter Saturation Voltage

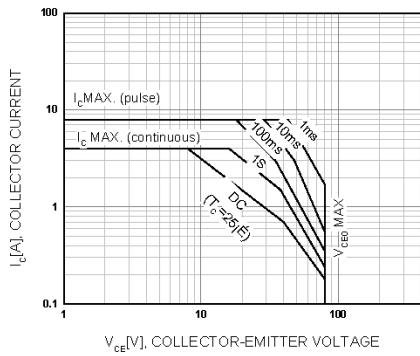


Figure 5. Safe Operating Area

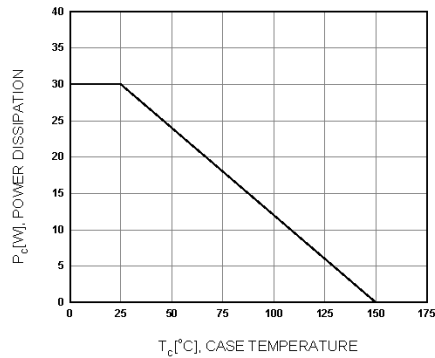
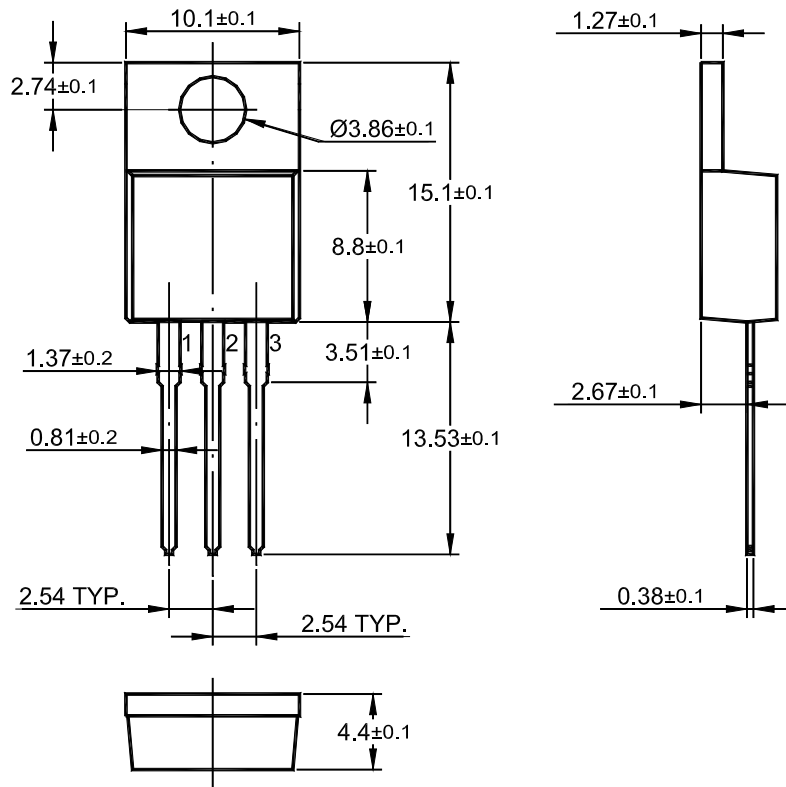


Figure 6. Power Derating

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TO-220 PACKAGE OUTLINE



Dimensions in mm

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