

NPN Plastic-Encapsulate Transistors

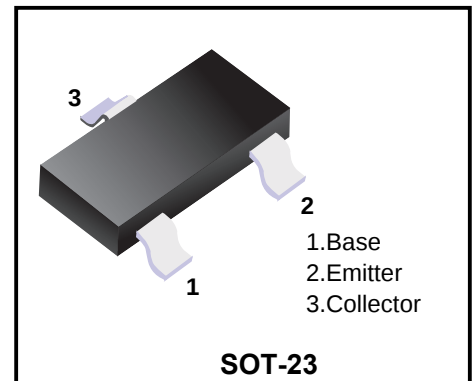
Applications

♦ Muting and Switching

Features

♦ Low on resistance: $R_{ON} = 1\ \Omega$ (Typ.) ($I_B = 5\text{mA}$)

♦ High DC Current Gain, $h_{FE} = 200 \sim 1200$



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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	50	V
Collector-Emitter Voltage	BV_{CEO}	20	V
Emitter-Base Voltage	BV_{EBO}	6	V
Collector Current	I_C	300	mA
Collector Power Dissipation	P_D	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\ \mu\text{A}$, $I_E = 0$	50			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 1\text{mA}$, $I_B = 0$	20			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\ \mu\text{A}$, $I_C = 0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB} = 50\text{V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 2\text{V}$, $I_C = 4\text{mA}$	200		1200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 30\text{mA}$, $I_B = 3\text{mA}$			0.1	V
Base-emitter voltage	V_{BE}	$V_{CE} = 2\text{V}$, $I_C = 4\text{mA}$			0.9	V
Transition frequency	f_T	$V_{CE} = 6\text{V}$, $I_C = 4\text{mA}$		30		MHz
Output Capacitance	C_{ob}	$V_{CE} = 10\text{V}$, $f = 1\text{MHz}$		4.8		pF

h_{FE} Classification

Classification	2SC3326-A	2SC3326-B
Range	200~700	350~1200
Marking	CC A	CC B

Typical Characteristics

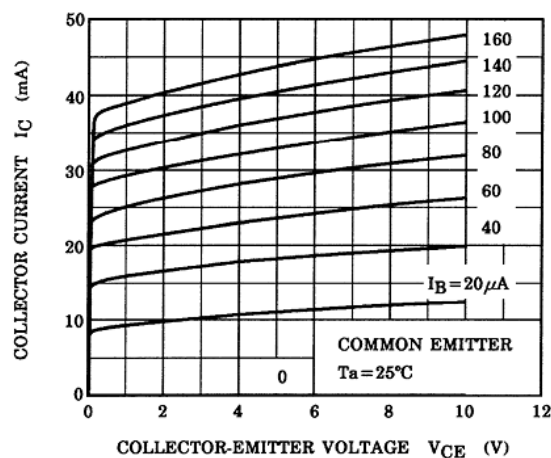


Figure 1. Static Characteristic

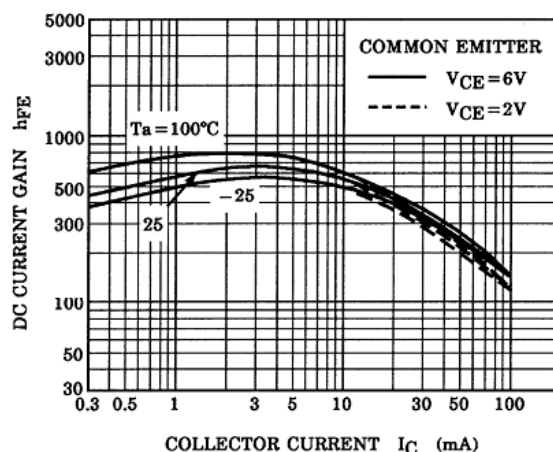


Figure 2. DC current Gain

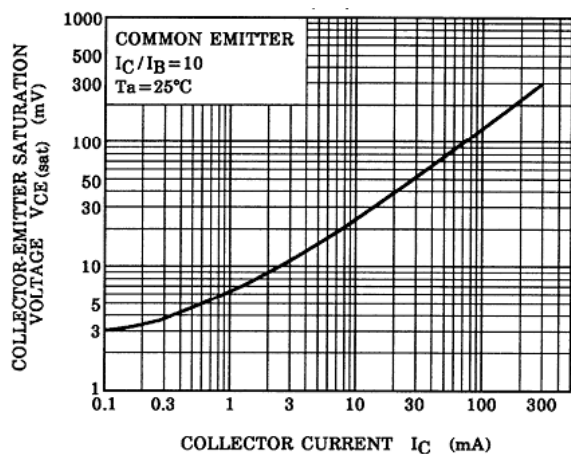


Figure 3. Collector-Emitter Saturation Voltage

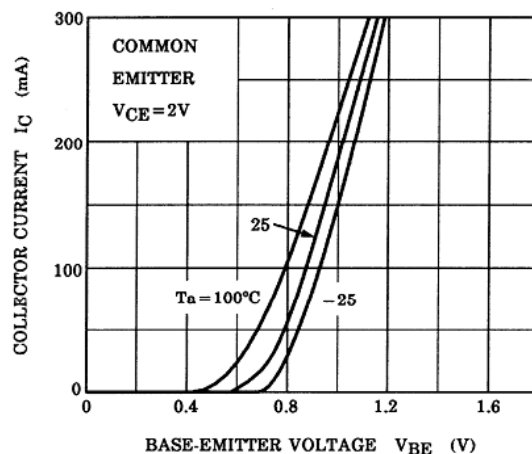


Figure 4. Base-Emitter Voltage

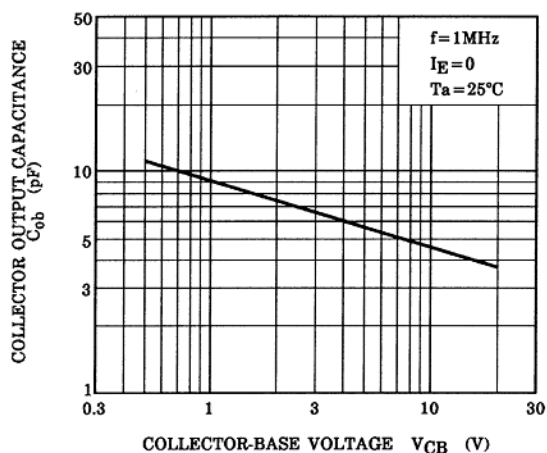


Figure 5. Collector Capacitance

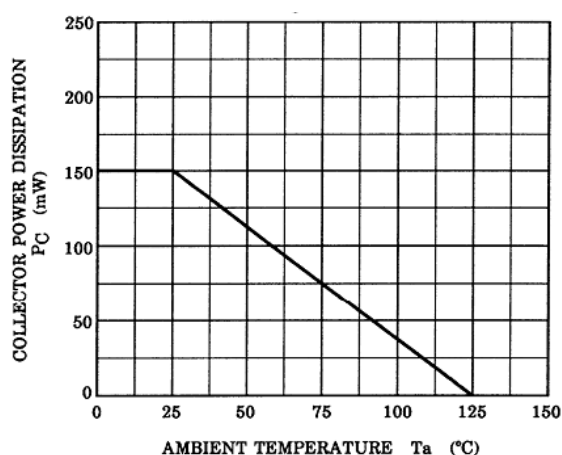


Figure 6. Power Derating

Ordering information

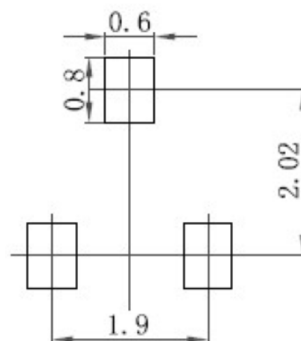
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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