

**2SC3068**

High h_{FE} , Low-Frequency General-Purpose Amplifier Applications

Applications

- Low-frequency, general-purpose amplifier., various drivers, muting circuit.

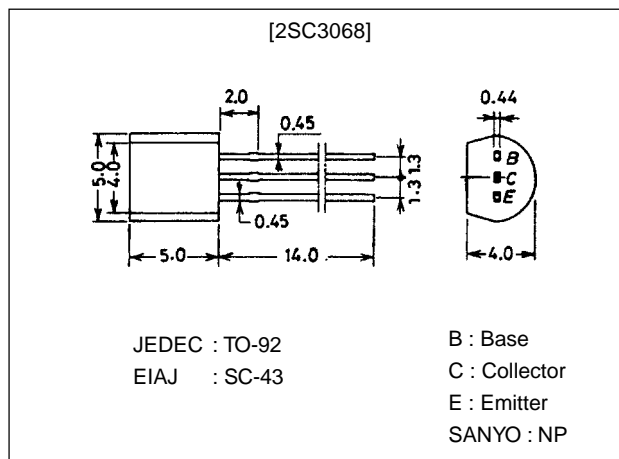
Features

- High DC current gain (h_{FE} =800 to 3200).
- Large current capacity.
- Low collector-to-emitter saturation voltage ($V_{CE(sat)}$ =0.5V max).
- High V_{EBO} (V_{EBO} ≥15V).

Package Dimensions

unit:mm

2003A



Specifications

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

Parameter	Symbol	Condition	Rating	Unit
Collector-to-Base Voltage	CBO		30	V
Collector-to-Emitter Voltage	CEO		25	V
Emitter-to-Base Voltage	EBO		15	V
Collector Current	C		300	mA
Collector Current (Pulse)	CP		500	mA
Base Current	B		60	mA
Collector Dissipation	C		600	mW
Junction Temperature	T		150	$^\circ\text{C}$
Storage Temperature	Tst		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Condition	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	CBO	$V_{CB}=20\text{V}, I_E=0$			0A	μ
Emitter Cutoff Current	EBO	$V_{EB}=10\text{V}, I_C=0$			0A	μ
DC Current Gain	h_{FE1V}	$CE=5\text{V}, I_C=10\text{mA}$	800	160	320	
	h_{FE2V}	$CE=5\text{V}, I_C=200\text{mA}$	600			
Gain-Bandwidth Product	T	$V_{CE}=10\text{V}, I_C=10\text{mA}$		250		MHz
Output Capacitance	ob	$V_{CB}=10\text{V}, f=1\text{MHz}$		45		pF

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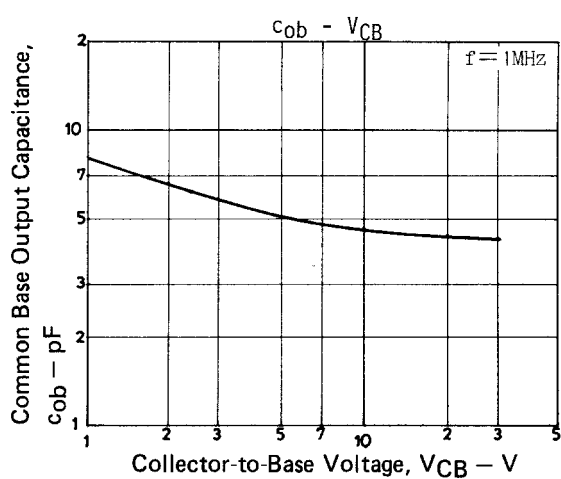
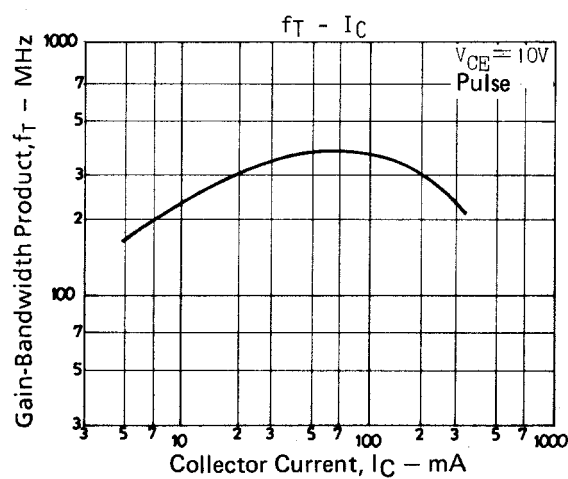
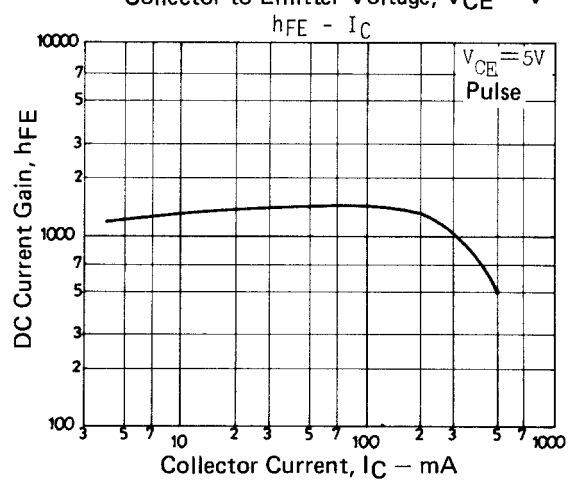
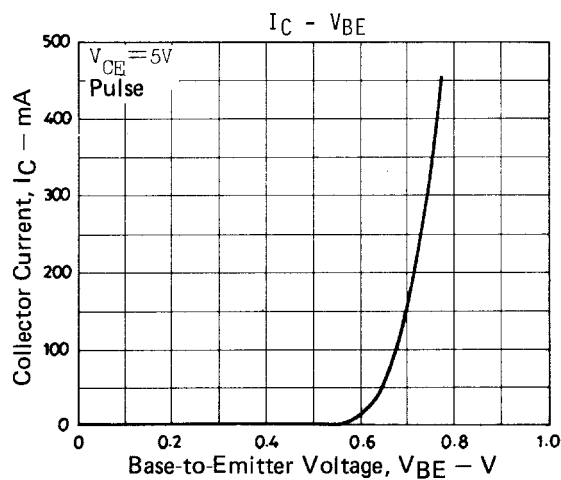
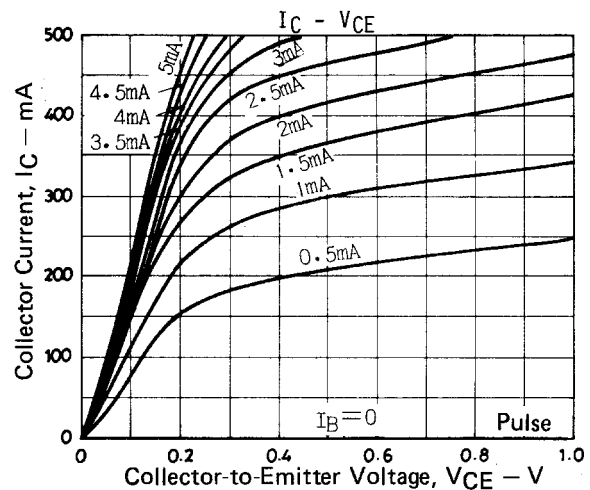
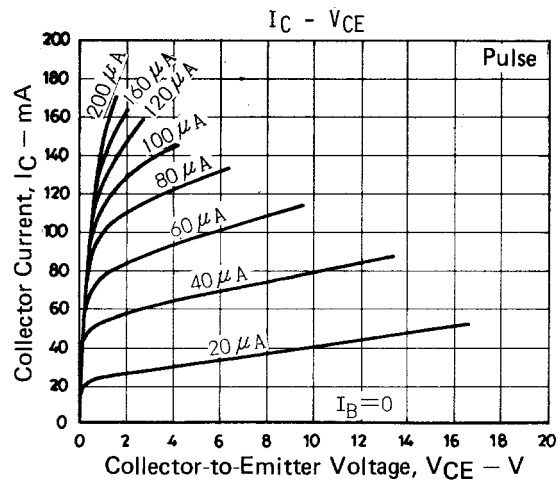
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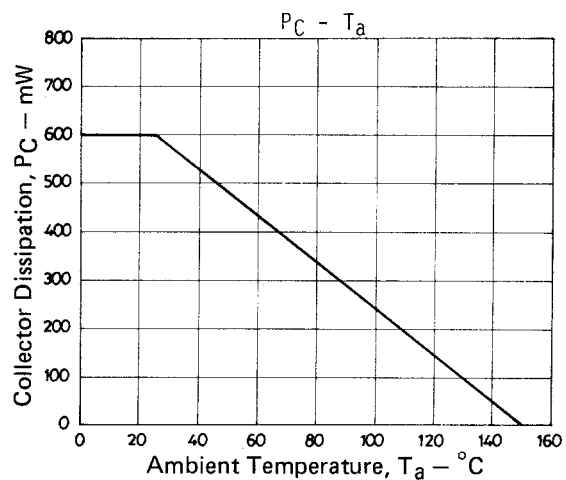
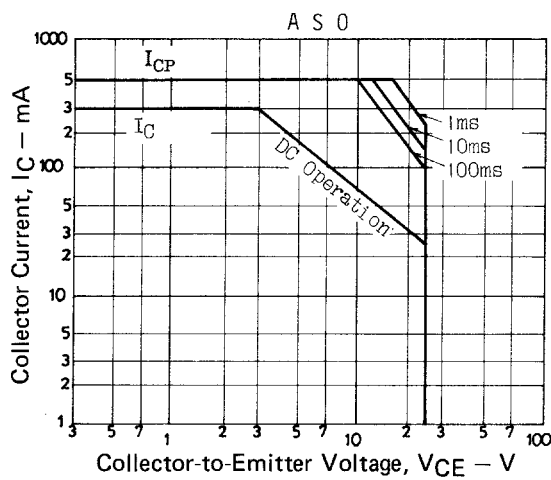
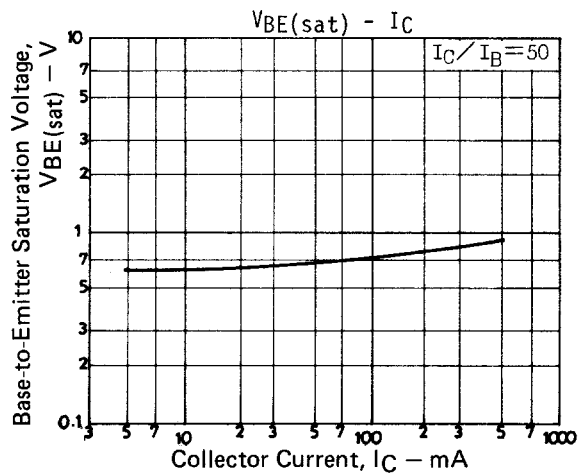
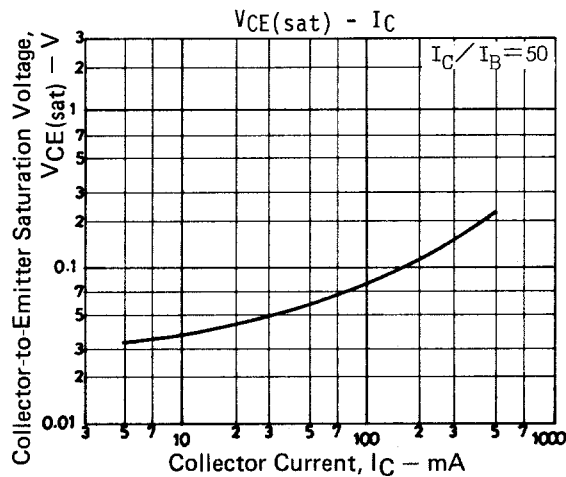
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Parameter	Symbol	Conditions	Ratings			Unit
			mμ	typ	ma	
Collector-to-Emitter Saturation Voltage	CE(sat)	$I_C=200\text{mA}$, $I_B=4\text{mA}$		0.512	0V	
Base-to-Emitter Saturation Voltage	BE(sat)	$I_C=200\text{mA}$, $I_B=4\text{mA}$		0.85	1V	
Collector-to-Base Breakdown Voltage	(BR)CBO	$I_C=10\mu\text{A}$, $I_E=0$	3V			
Collector-to-Emitter Breakdown Voltage	(BR)CEO	$I_C=1\text{mA}$, $R_{BE}=\infty$	25			
Emitter-to-Base Breakdown Voltage	(BR)EBO	$I_E=10\mu\text{A}$, $I_C=0$	1V			





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