

**2SC5155**

Low-Frequency General-Purpose Amplifier, Applications

Applications

- Various drivers.

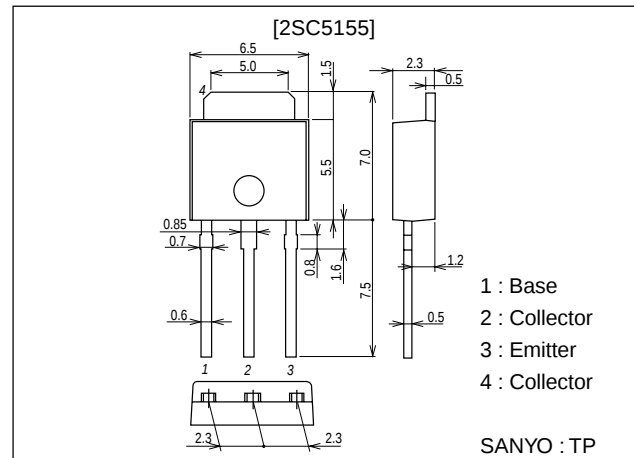
Features

- High current capacity.
- Adoption of MBIT process.
- High DC current gain.
- Low collector-to-emitter saturation voltage.
- High V_{EBO} .

Package Dimensions

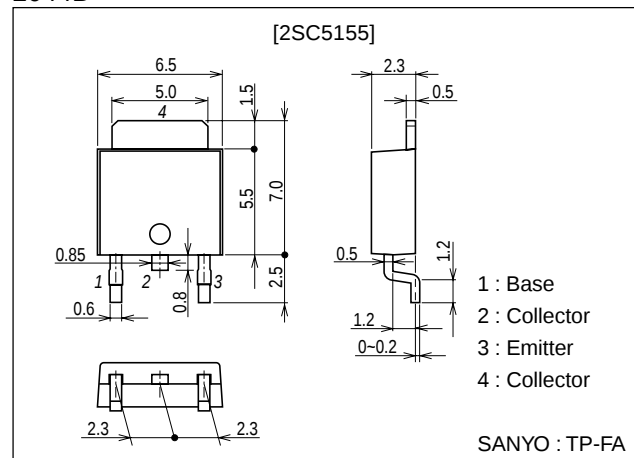
unit:mm

2045B



unit:mm

2044B



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20599HA (KT)/93094TS (KOTO) BX-0950 No.4802-1/4

Specifications

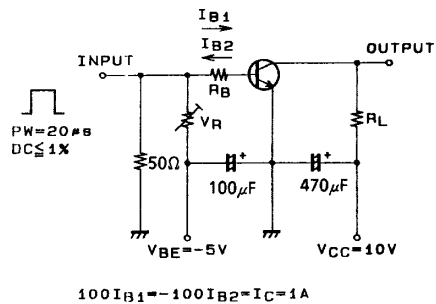
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

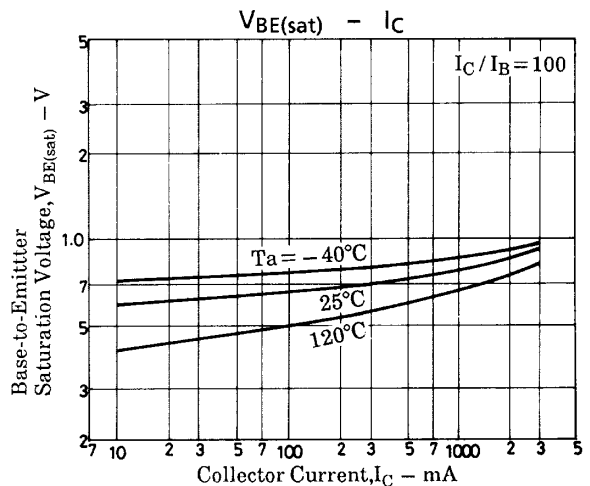
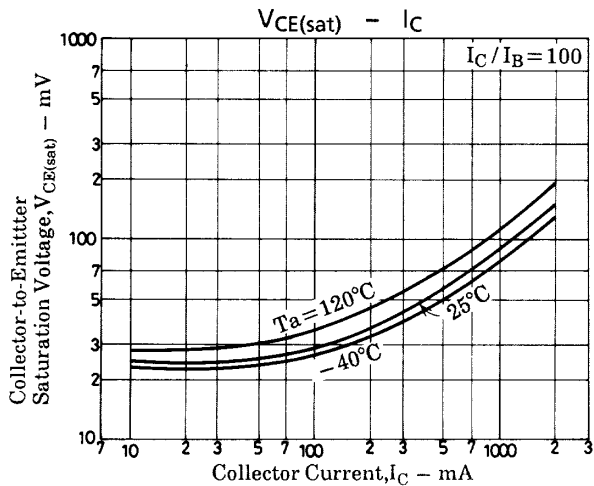
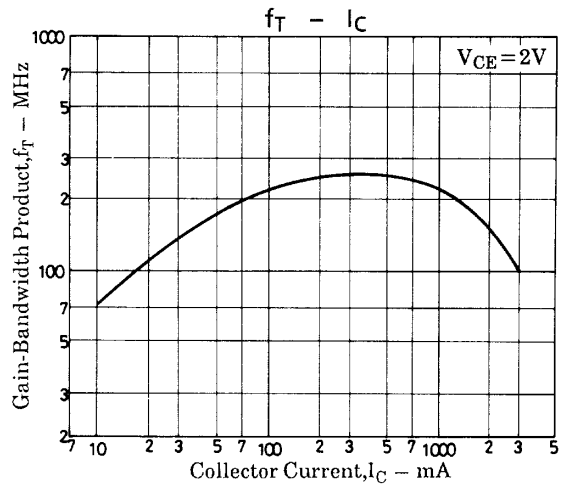
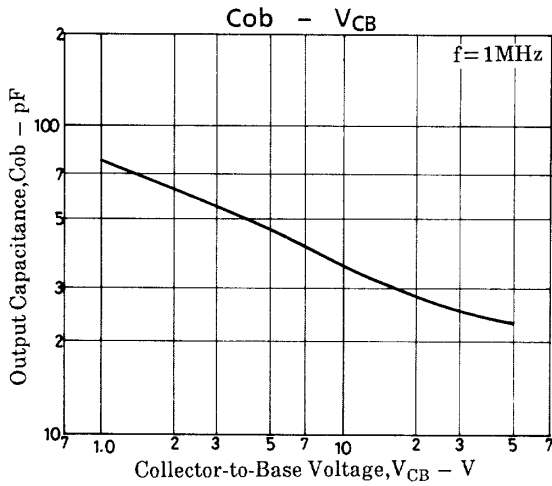
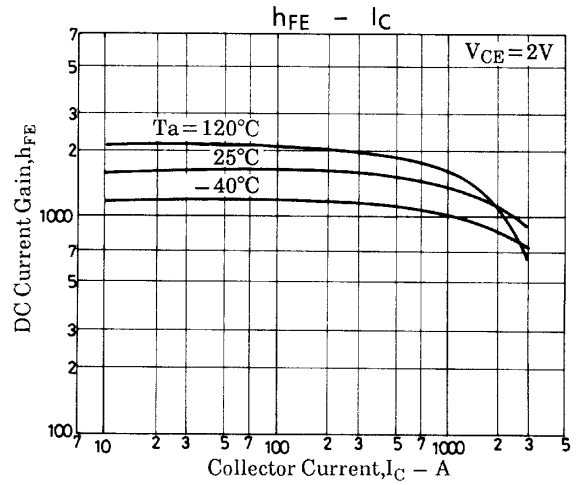
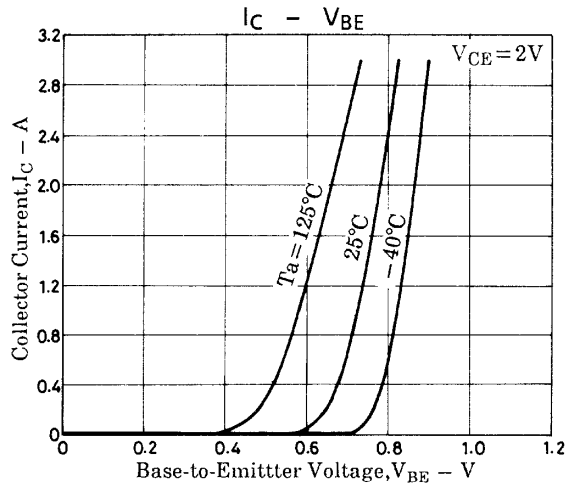
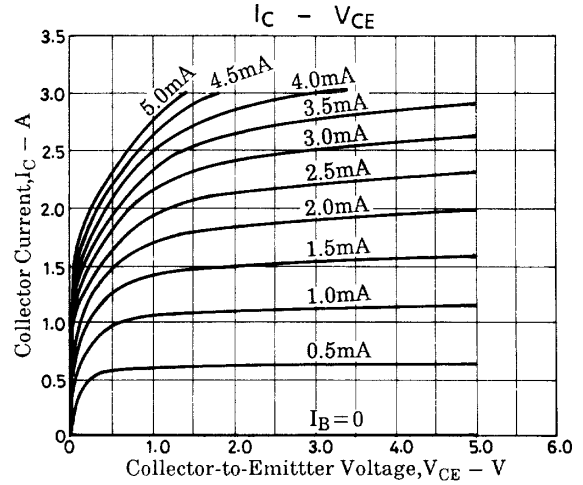
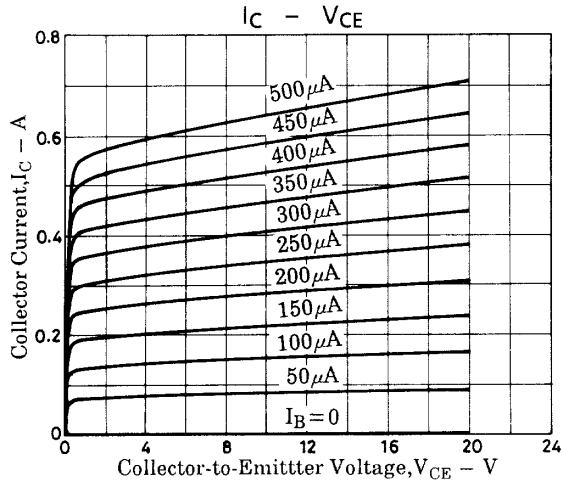
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		50	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		15	V
Collector Current	I_C		3	A
Collector Current (Pulse)	I_{CP}		6	A
Base Current	I_B		0.6	A
Collector Dissipation	P_C		1	W
		$T_c = 25^\circ\text{C}$	20	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

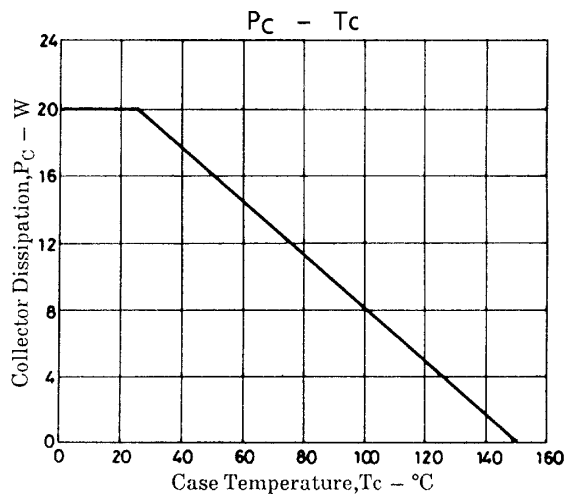
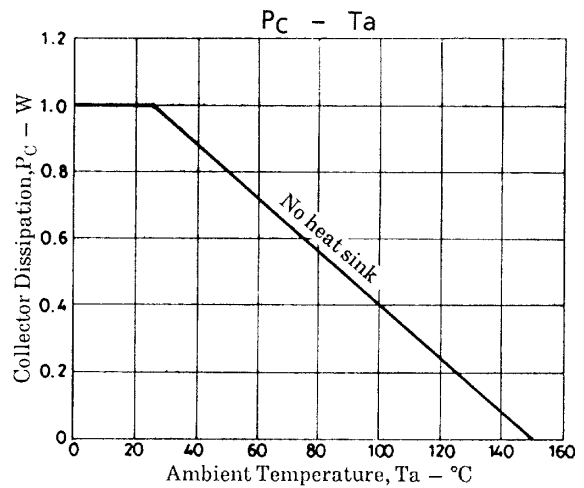
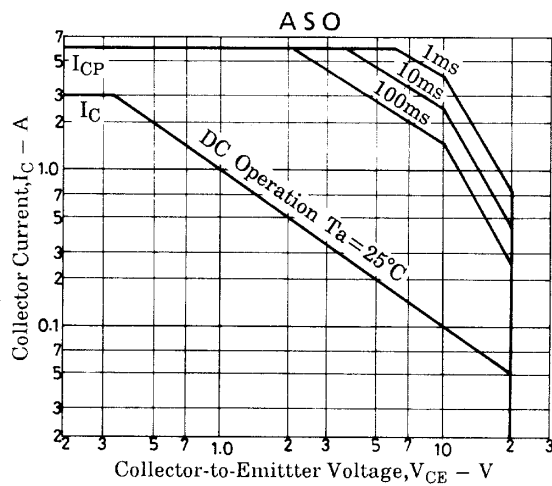
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = 30\text{V}, I_E = 0$			100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 10\text{V}, I_C = 0$			100	nA
DC Current Gain	h_{FE1}	$V_{CE} = 2\text{V}, I_C = 500\text{mA}$	800	1500	3200	
	h_{FE2}	$V_{CE} = 2\text{V}, I_C = 2\text{A}$	500			
Gain-Bandwidth Product	f_T	$V_{CE} = 2\text{V}, I_C = 500\text{mA}$		260		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		35		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}, I_B = 20\text{mA}$		0.15	0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2\text{A}, I_B = 20\text{mA}$		0.85	1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	50			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	15			V
Turn-ON Time	t_{on}	See specified Test Circuit		0.14		μs
Storage Time	t_{stg}	See specified Test Circuit		1.5		μs
Fall Time	t_f	See specified Test Circuit		0.12		μs

Switching Time Test Circuit







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