TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC2458(L)

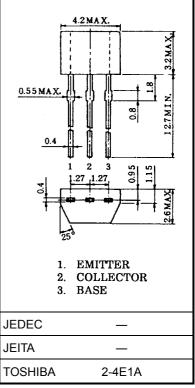
Audio Amplifier Applications Low Noise Audio Amplifier Applications

- High current capability: IC = 150 mA (max)
- High DC current gain: $h_{FE} = 70 \sim 700$
- Excellent hFE linearity: hFE (IC = 0.1 mA)/hFE (IC = 2 mA) = 0.95 (typ.)
- Low noise: NF (2) = 0.2 dB (typ.), 3dB (max)
- Complementary to 2SA1048 (L).
- Small package.

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	IC	150	mA
Base current	ΙΒ	50	mA
Collector power dissipation	P _C	200	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55~125	°C

Unit: mm



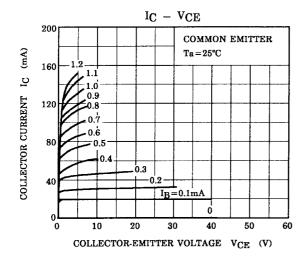
Weight: 0.13 g (typ.)

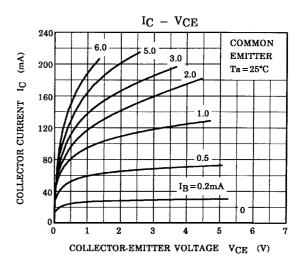
Electrical Characteristics (Ta = 25°C)

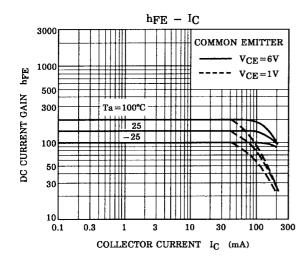
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = 50 \text{ V}, I_{E} = 0$	_	_	0.1	μА
Emitter cut-off current	I _{EBO}	V _{EB} = 5 V, I _C = 0	_	_	0.1	μА
DC current gain	h _{FE} (Note)	V _{CE} = 6 V, I _C = 2 mA	70	_	700	
Collector-emitter saturation voltage	V _{CE (sat)}	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$	_	0.1	0.25	٧
Transition frequency	f _T	V _{CE} = 10 V, I _C = 1 mA	80	_	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	2.0	3.5	pF
Noise figure —	NF (1)	$\begin{aligned} &V_{CE}=6 \text{ V, I}_{C}=0.1 \text{ mA, f}=100 \text{ Hz,} \\ &R_{G}=10 \text{ k}\Omega \end{aligned}$	_	0.5	6	dB
	NF (2)	$\begin{aligned} &V_{CE}=6 \text{ V, I}_{C}=0.1 \text{ mA, f}=1 \text{ kHz,} \\ &R_{G}=10 \text{ k}\Omega \end{aligned}$	_	0.2	3	

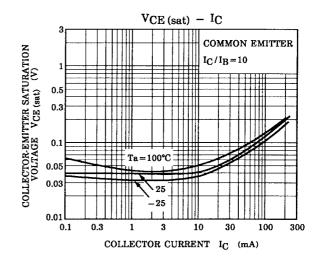
Note: hFE classification O: 70~140, Y: 120~240, GR: 200~400, BL: 350~700

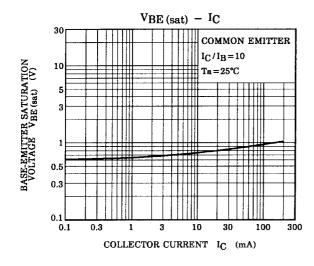
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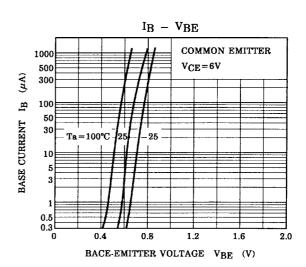




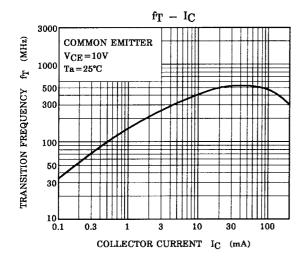


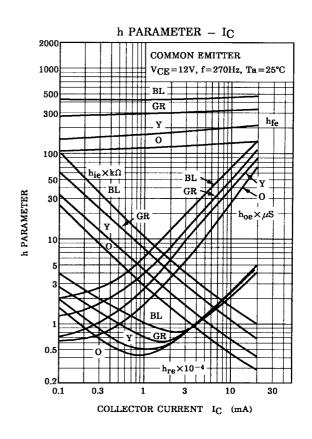


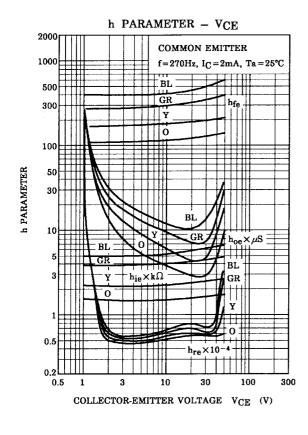


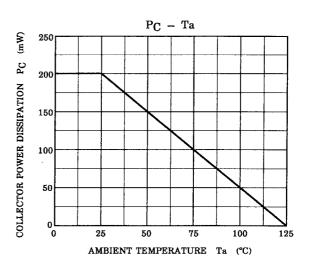


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