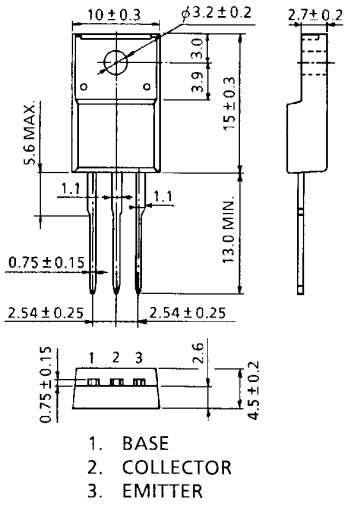
TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

2SC4935

Power Amplifier Applications

- Good h_{FE} linearity
- Complementary to 2SA1869 and 5-watt-output applications.

Unit: mm



JEDEC	—
JEITA	SC-67
TOSHIBA	2-10R1A

Weight: 1.7 g (typ.)

Maximum Ratings (Tc = 25°C)

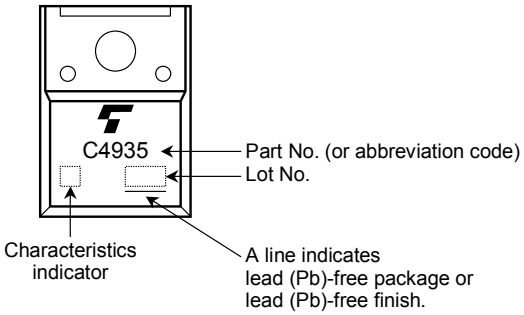
Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	50	V
Collector-emitter voltage		V_{CEO}	50	V
Emitter-base voltage		V_{EBO}	5	V
Collector current		I_C	3	A
Base current		I_B	0.3	A
Collector power dissipation	Ta = 25°C	P_C	2.0	W
	Tc = 25°C		10	
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	−55 to 150	°C

Electrical Characteristics (Tc = 25°C)

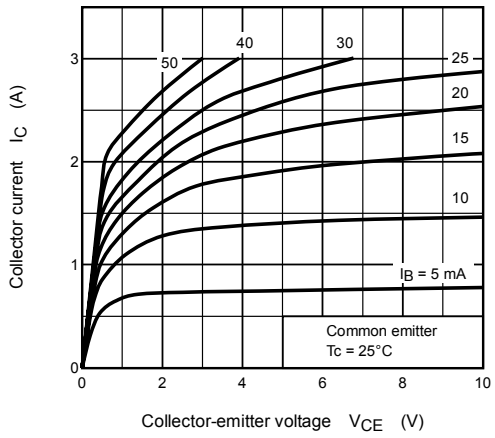
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 50 V, I_E = 0	—	—	1.0	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 5 V, I_C = 0	—	—	1.0	μA
Collector-emitter breakdown voltage	$V_{(BR)\ CEO}$	I_C = 10 mA, I_B = 0	50	—	—	V
DC current gain	$h_{FE\ (1)}$ (Note)	V_{CE} = 2 V, I_C = 0.5 A	70	—	240	
	$h_{FE\ (2)}$	V_{CE} = 2 V, I_C = 2.5 A	30	—	—	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 2 A, I_B = 0.2 A	—	0.4	0.6	V
Base-emitter voltage	V_{BE}	V_{CE} = 2 V, I_C = 0.5 A	—	0.75	1.0	V
Transition frequency	f_T	V_{CE} = 2 V, I_C = 0.5 A	—	80	—	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz	—	30	—	pF

Note: $h_{FE\ (1)}$ classification O: 70 to 140, Y: 120 to 240

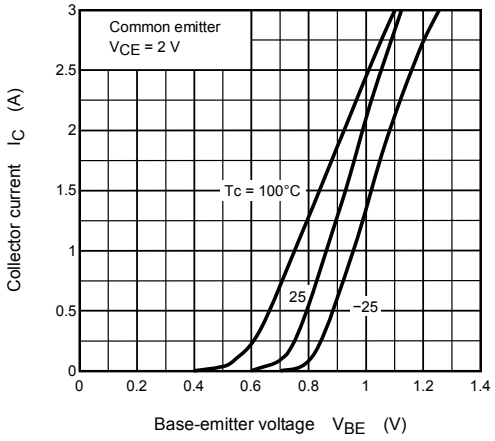
Marking


C4935
Part No. (or abbreviation code)
Lot No.
Characteristics indicator
A line indicates lead (Pb)-free package or lead (Pb)-free finish.

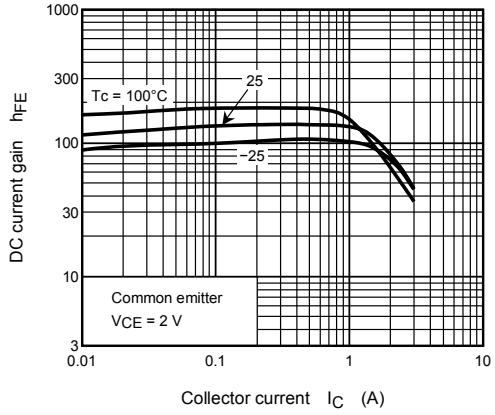
$I_C - V_{CE}$



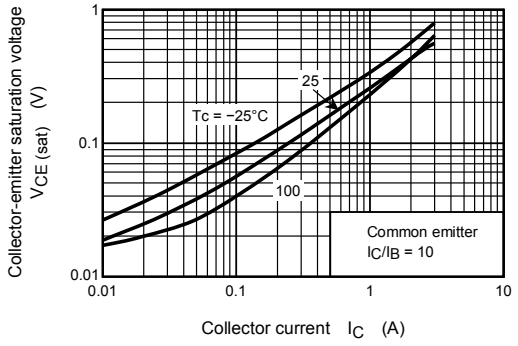
$I_C - V_{BE}$



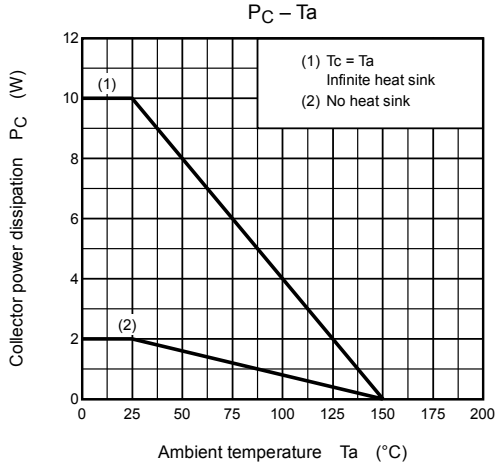
$h_{FE} - I_C$



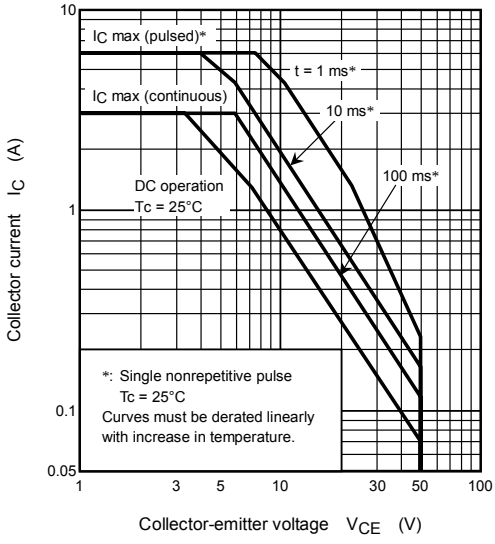
$V_{CE\ (sat)} - I_C$



$P_C - Ta$



Safe Operating Area



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