

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

# 2SC3265

Low Frequency Power Amplifier Applications  
Power Switching Applications

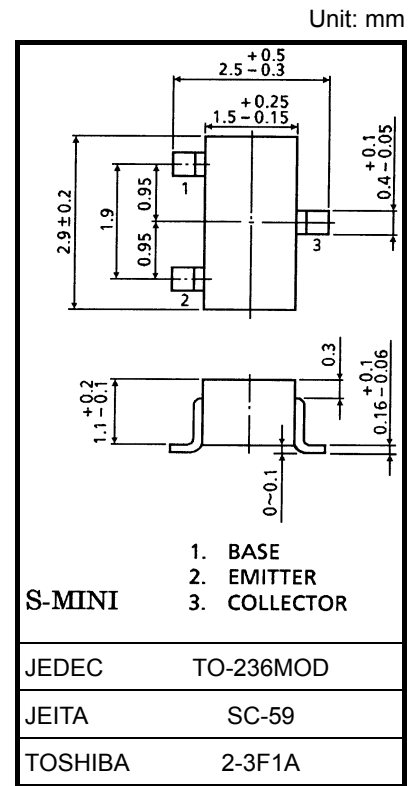
- High DC current gain:  $h_{FE(1)} = 100\sim 320$
- Low saturation voltage:  $V_{CE(sat)} = 0.4\text{ V (max)}$   
( $I_C = 500\text{ mA}$ ,  $I_B = 20\text{ mA}$ )
- Complementary to 2SA1298

## Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	30	V
Collector-emitter voltage	$V_{CEO}$	25	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	800	mA
Base current	$I_B$	160	mA
Collector power dissipation	$P_C$	200	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



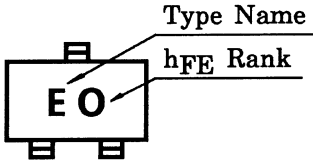
Weight: 0.012 g (typ.)

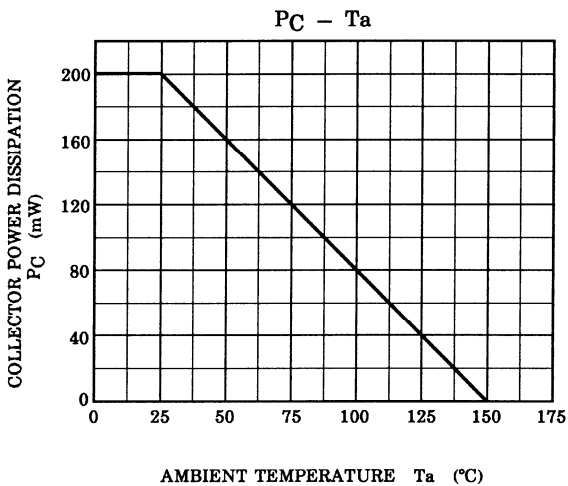
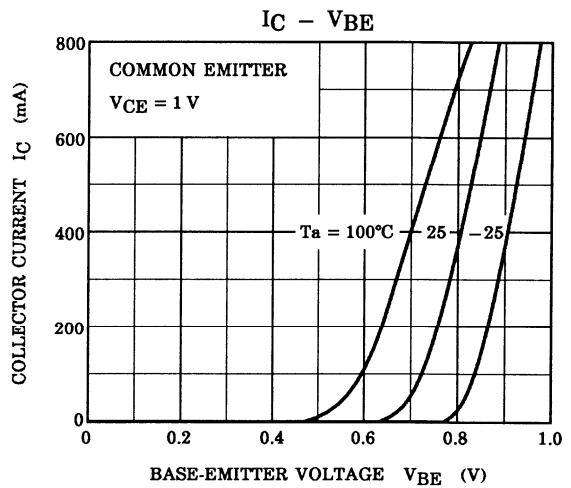
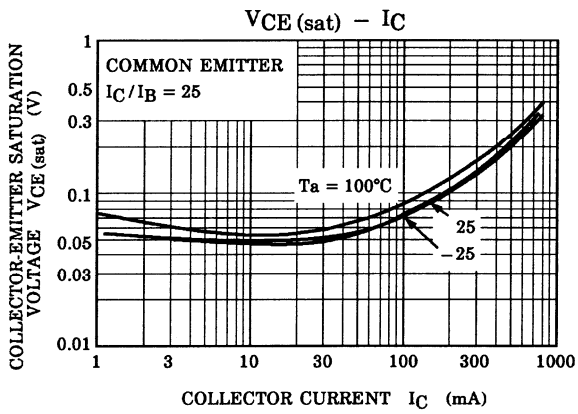
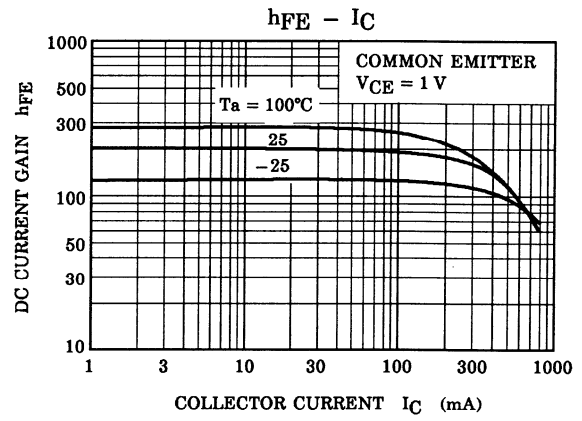
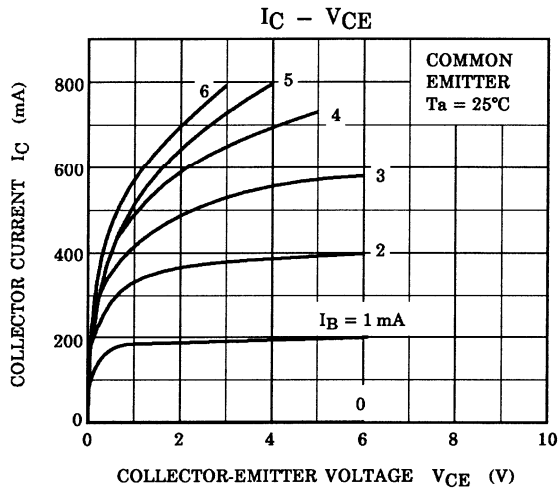
## Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 30\text{ V}$ , $I_E = 0$	—	—	0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5\text{ V}$ , $I_C = 0$	—	—	0.1	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}$ , $I_B = 0$	25	—	—	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 0.1\text{ mA}$ , $I_C = 0$	5	—	—	V
DC current gain	$h_{FE(1)}$ (Note)	$V_{CE} = 1\text{ V}$ , $I_C = 100\text{ mA}$	100	—	320	
	$h_{FE(2)}$	$V_{CE} = 1\text{ V}$ , $I_C = 800\text{ mA}$	40	—	—	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{ mA}$ , $I_B = 20\text{ mA}$	—	—	0.4	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 1\text{ V}$ , $I_C = 10\text{ mA}$	0.5	—	0.8	V
Transition frequency	$f_T$	$V_{CE} = 5\text{ V}$ , $I_C = 10\text{ mA}$	—	120	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$	—	13	—	pF

Note:  $h_{FE(1)}$  classification O: 100~200, Y: 160~320

Marking





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