Unit: mm

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC6026CT

General Purpose Amplifier Applications

• High voltage and high current

: $V_{CEO} = 50V$, $I_{C} = 100mA (max)$

• Excellent h_{FE} linearity: h_{FE} ($I_C = 0.1 \text{ mA}$)/h_{FE} ($I_C = 2 \text{ mA}$)= 0.95 (typ.)

High h_{FE} : h_{FE} = 120 to 400

· Complementary to 2SA2154CT

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit	
Collector-base voltage	V_{CBO}	60	V	
Collector-emitter voltage	V _{CEO}	50	V	
Emitter-base voltage	V _{EBO}	5	V	
Collector current	IC	100	mA	
Base current	ΙΒ	30	mA	
Collector power dissipation	P _C (Note1)	100	mW	
Junction temperature	Tj	150	°C	
Storage temperature range	T _{stg}	-55 to 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.

Weight: 0.75 mg (typ.)

CST3

JEDEC JEITA TOSHIBA 1.BASE 2.EMITTER

3.COLLECTOR

2-1J1A

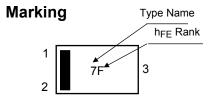
operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Note1: Mounted on FR4 board (10 mm × 10 mm × 1 mmt)

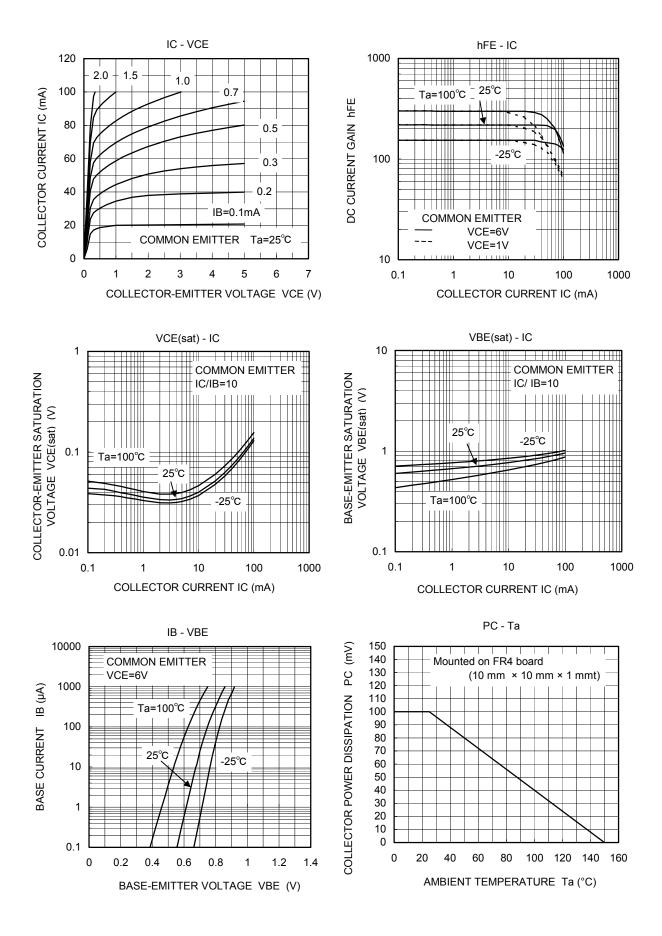
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = 60 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)	$V_{CE} = 6 \text{ V}, I_{C} = 2 \text{ mA}$	120	_	400	
Collector-emitter saturation voltage	V _{CE} (sat)	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$		0.1	0.25	>
Transition frequency	f _T	V _{CE} = 10 V, I _C = 1 mA	60	_		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$		0.95		pF

Note: h_{FE} classification Y (F): 120 to 240, GR (H): 200 to 400 () marking symbol



Start of commercial production 2004-08



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