TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

2SC6026MFV

General-Purpose Amplifier Applications

• High voltage and high current

 $: V_{CEO} = 50 \text{ V}, I_{C} = 150 \text{ mA (max)}$

• Excellent hFE linearity:

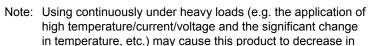
 $h_{FE} (I_C = 0.1 \text{ mA})/h_{FE} (I_C = 2 \text{ mA}) = 0.95 \text{ (typ.)}$

• High h_{FE} : h_{FE} = 120 to 400

• Complementary to 2SA2154MFV

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	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	150	mA
Base current	Ι _Β	30	mA
Collector power dissipation	PC	150*	mW
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	-55 to 150	°C

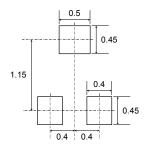


the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

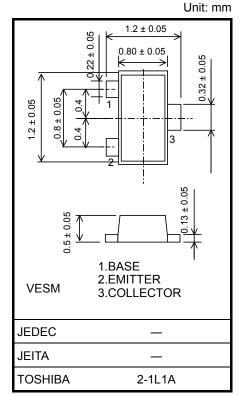
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

*: Mounted on FR4 board (25.4 mm × 25.4 mm × 1.6mmt)

Mount Pad Dimensions (Reference)



Unit: mm



Weight: 1.5 mg (typ.)

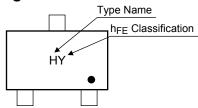
Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cutoff current	Ісво	V _{CB} = 60 V, I _E = 0	_	_	0.1	μА
Emitter cutoff 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)	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$		0.15	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	3	pF

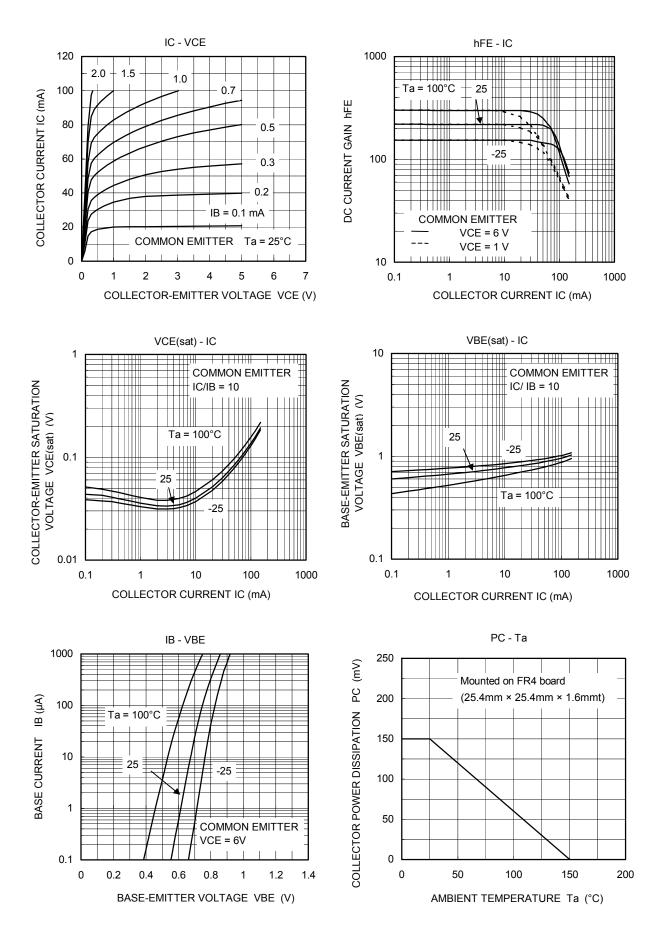
Note: h_{FE} classification Y(Y): 120 to 240, GR (G): 200 to 400

() marking symbol

Marking



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