TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC3074

High Current Switching Applications

- Low collector saturation voltage: VCE (sat) = 0.4 V (max) (IC = 3 A)
- High speed switching time: $t_{stg} = 1.0 \mu s$ (typ.)
- Complementary to 2SA1244

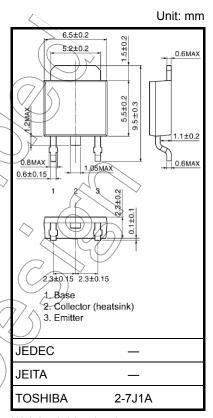
Absolute Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V _{CBO}	60	V	
Collector-emitter voltage		V _{CEO}	50	(///)	
Emitter-base voltage		V _{EBO}	5	A	
Collector current		Ic	5	A	
Base current		ΙΒ	A (\)	> A	
Collector power dissipation	Ta = 25°C	PC	10	w	
	Tc = 25°C	FC	20	VV	
Junction temperature		T _j	150	/°e	
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. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

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



Weight: 0.36 g (typ.)

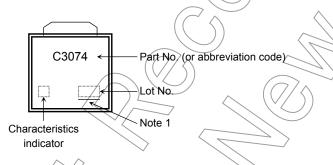


Electrical Characteristics (Ta = 25°C)

Charac	cteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off cu	ırrent	I _{CBO}	V _{CB} = 50 V, I _E = 0	_	_	1	μA
Emitter cut-off curr	ent	I _{EBO}	V _{EB} = 5 V, I _C = 0	_	_	1	μΑ
Collector-emitter b	reakdown voltage	V (BR) CEO	I _C = 10 mA, I _B = 0	50	_	_	V
DC current gain		h _{FE (1)} (Note)	V _{CE} = 1 V, I _C = 1 A	70	\ -	240	
		h _{FE (2)}	V _{CE} = 1 V, I _C = 3 A	30	/ _	_	
Collector-emitter s	aturation voltage	V _{CE} (sat)	I _C = 3 A, I _B = 0.15 A	/	0.2	0.4	V
Base-emitter satur	ation voltage	V _{BE} (sat)	I _C = 3 A, I _B = 0.15 A	<u></u>	0.9	1.2	V
Transition frequen	су	f _T	V _{CE} = 4 V, I _C = 1 A	· _	120	_	MHz
Collector output ca	apacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	80	_	pF
Switching time	Turn-on time	t _{on}	20 μs OUTPUT	- (0.1	>	μs
	Storage time	t _{stg}	INPUTO B2 P P P P P P P P P P P P P P P P P P			_	
	Fall time	t _f	I _{B1} = 0.15 Å , I _{B2} = 0.15 Å Dutty cycle ≤ 1%	2	0.1	_	

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

Marking



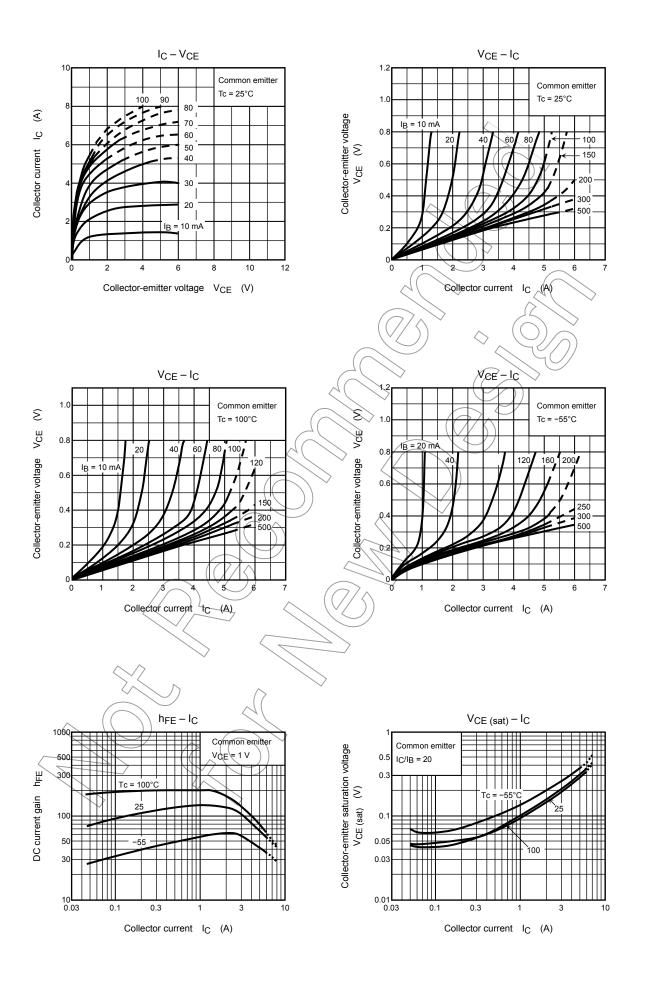
Note 1: A line under a Lot No. identifies the indication of product Labels.

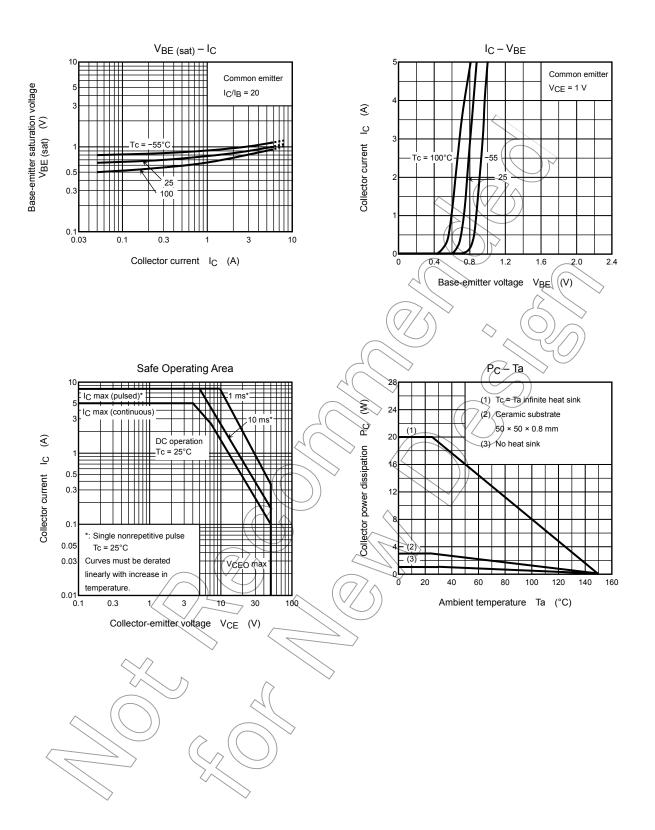
Not underlined: [[Pb]]/INCLUDES > MCV

Underlined: [[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

Please contact your TOSHBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

2 2010-08-27





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