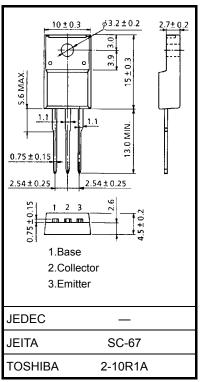
TOSHIBA Transistor Silicon NPN Triple Diffused Type (PCT Process)

# 2SC2073A

Power Amplifier Applications Vertical Output Applications

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

Characteristic		Symbol	Rating	Unit	
Collector-base voltage		V <sub>CBO</sub>	150	V	
Collector-emitter voltage		V <sub>CEO</sub>	150	V	
Emitter-base voltage		V <sub>EBO</sub>	5	V	
Collector current		Ι <sub>C</sub>	1.5	А	
Base current		Ι <sub>Β</sub>	0.5	А	
Collector power dissipation	Ta = 25°C	Da	2.0	W	
	Tc = 25°C	PC	25		
Junction temperature		Tj	150	°C	
Storage temperature range		T <sub>stg</sub>	-55 to 150	°C	



Weight: 1.7 g (typ.)

Note1: 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.

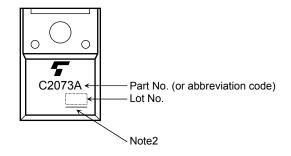
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Unit: mm

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Conditions	Min	Тур.	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 120 V, I <sub>E</sub> = 0	_	_	10	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0	_	_	10	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 500 mA	40	75	140	
Collector-emitter saturation voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA	_	_	1.5	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 500 mA	0.65	0.75	0.85	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 500 mA	_	4	_	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz		35		pF

### Marking



Note2 : A line under a Lot No. identifies the indication of product Labels. [[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

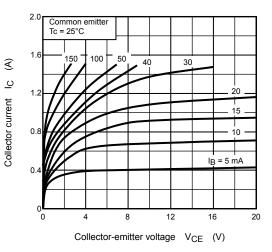
Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product.

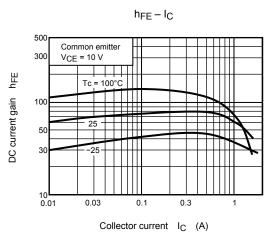
The RoHS is the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

## **TOSHIBA**

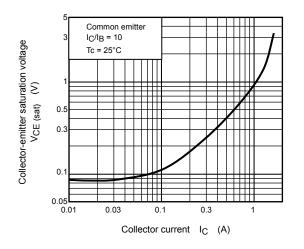
### 2<u>SC2</u>073A



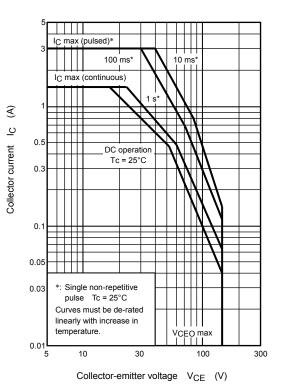




V<sub>CE (sat)</sub> – I<sub>C</sub>



Safe Operating Area



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