

TOSHIBA Transistor Silicon NPN Epitaxial Planar Type

# 2SC5720

MEDIUM POWER AMPLIFIER APPLICATIONS  
STOROBO FLASH APPLICATIONS

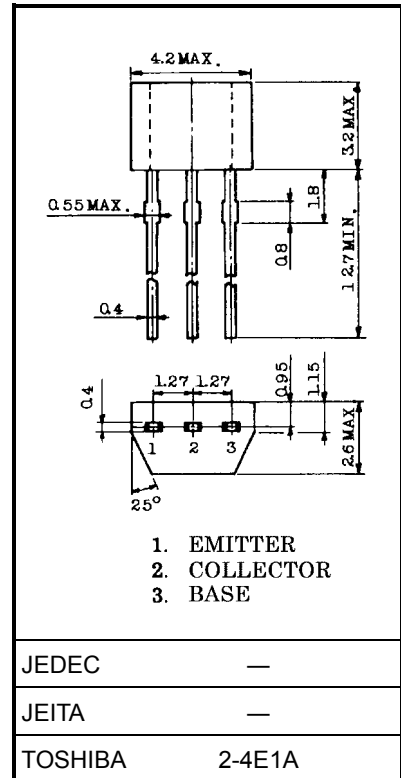
Unit: mm

- Low Saturation Voltage:  $V_{CE(sat)}(1) = 0.25\text{ V (max)}$   
( $I_C = 3\text{ A}/I_B = 60\text{ mA}$ )

### Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base voltage	$V_{CBO}$	15	V
Collector-Emitter voltage	$V_{CEO}$	10	V
Emitter-Base voltage	$V_{EBO}$	7	V
Collector current	DC	$I_C$	5
	Pulsed	$I_{CP}$	9
Collector power dissipation	$P_C$ (Note1)	550	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 to 150	°C

Note1: When a device is mounted on a glass epoxy board  
(35 mm × 30 mm × 1mm)

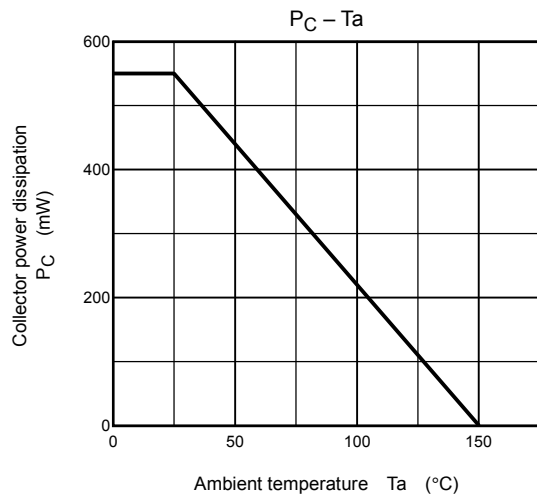
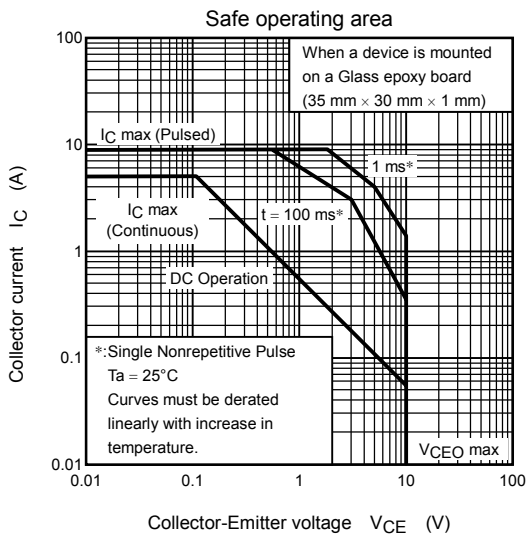
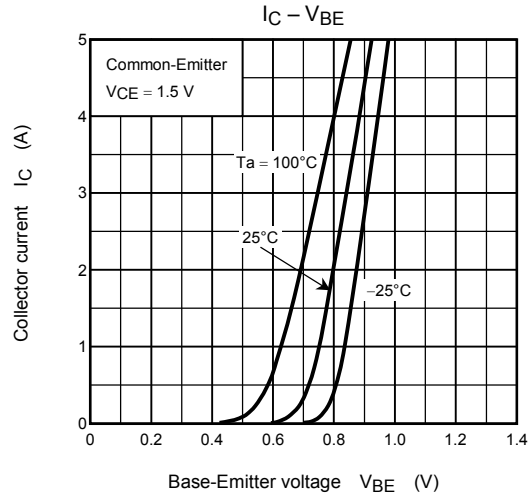
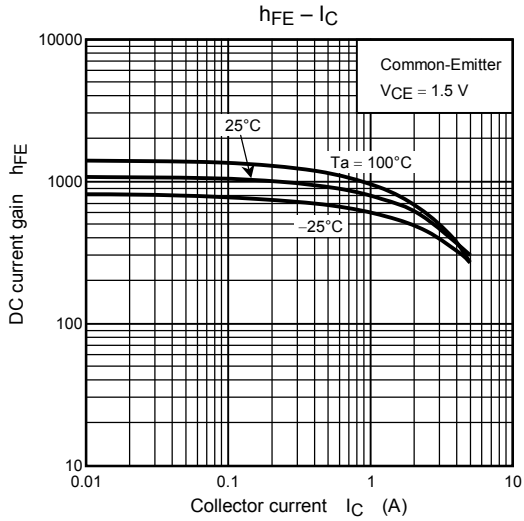
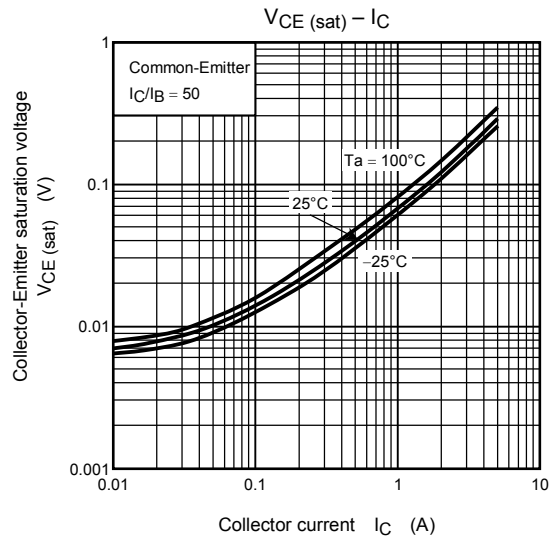
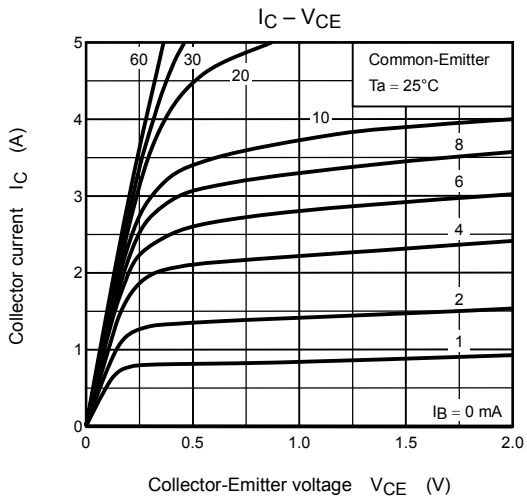


### Electrical Characteristics (Ta = 25°C)

Weight: 0.13 g (typ.)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 15\text{ V}, I_E = 0$	—	—	0.1	μA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	0.1	μA
Collector-Emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{ mA}, I_B = 0$	10	—	—	V
DC current gain	$h_{FE(1)}$ (Note2)	$V_{CE} = 1.5\text{ V}, I_C = 0.5\text{ A}$	700	—	2000	
	$h_{FE(2)}$ (Note2)	$V_{CE} = 1.5\text{ V}, I_C = 2\text{ A}$	450	—	—	
	$h_{FE(3)}$ (Note2)	$V_{CE} = 1.5\text{ V}, I_C = 5\text{ A}$	240	—	—	
Collector-Emitter saturation voltage	$V_{CE(sat)}$ (Note2)	$I_C = 3\text{ A}, I_B = 60\text{ mA}$	—	—	0.25	V
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$	—	30	—	pF

Note2: Pulse test



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