Unit in mm

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

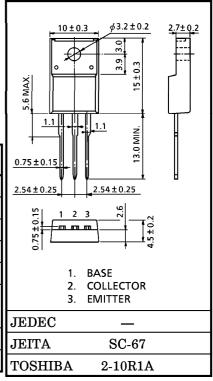
2 S C 4 9 3 5

POWER AMPLIFIER APPLICATIONS

- Good Linearity of hFE.
- Complementary to 2SA1869 and 5 Watts Output Applications.

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage		v_{CBO}	50	V	
Collector-Emitter Voltage		v_{CEO}	50	V	
Emitter-Base Voltage	Emitter-Base Voltage		5	V	
Collector Current		$I_{\mathbf{C}}$	3	A	
Base Current		I_{B}	0.3	A	
Collector Power	Ta=25°C	Da	2.0	w	
Dissipation	$Tc = 25^{\circ}C$	PC	10	, vv	
Junction Temperature		$\mathrm{T_{j}}$	150	$^{\circ}\mathrm{C}$	
Storage Temperature Range		$\mathrm{T_{stg}}$	-55~150	°C	



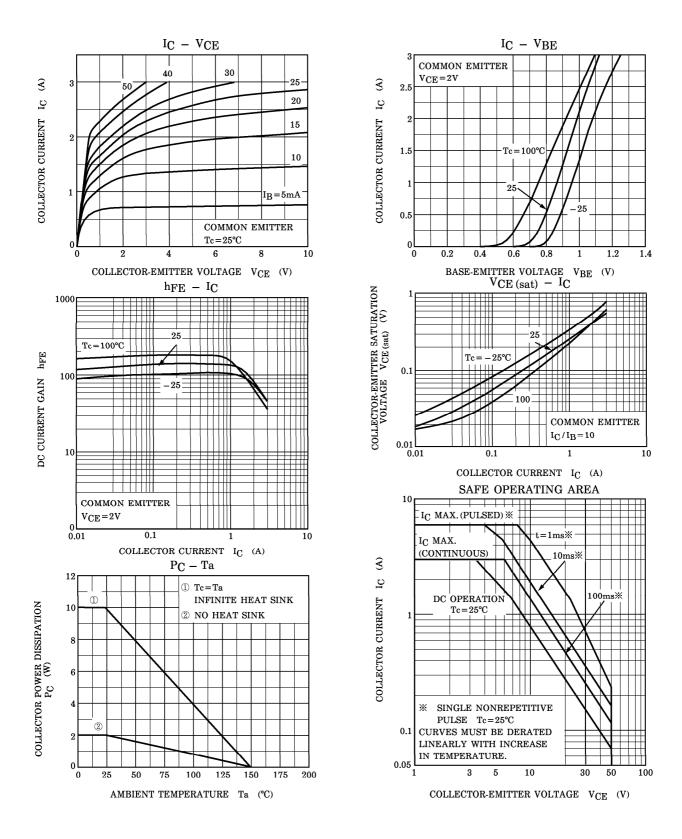
Weight: 1.7g (Typ.)

ELECTRICAL CHARACTERISTICS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{ m CBO}$	$V_{CB} = 50V, I_{E} = 0$	_	_	1.0	μ A
Emitter Cut-off Current	${ m I}_{ m EBO}$	$V_{EB}=5V, I_{C}=0$	_	_	1.0	μ A
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_{C}=10$ mA, $I_{B}=0$	50	_	_	V
DC Current Gain	hFE (1) (Note)	$V_{ m CE}$ =2V, I $_{ m C}$ =0.5A	70	_	240	
	h _{FE (2)}	$V_{\rm CE}$ =2V, $I_{\rm C}$ =2.5A	30	_	_	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_{C}=2A, I_{B}=0.2A$	_	0.4	0.6	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{\rm CE}$ =2V, $I_{\rm C}$ =0.5A	_	0.75	1.0	V
Transition Frequency	$ m f_{T}$	$V_{\rm CE}$ =2V, $I_{\rm C}$ =0.5A		80		MHz
Collector Output Capacitance	$C_{ m ob}$	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$	_	30	_	pF

(Note): hFE (1) Classification $O: 70\sim140$, $Y: 120\sim240$

1 2001-11-05



2 2001-11-05

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