

TOSHIBA Transistor Silicon NPN Triple Diffused Type

2SC5361

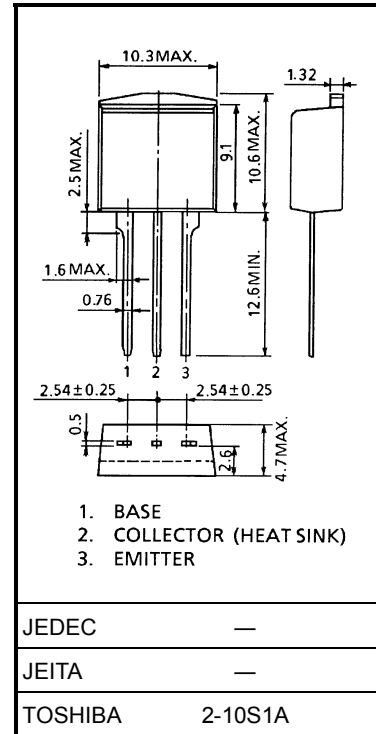
High-Voltage Switching Applications
 Switching Regulator Applications
 DC-DC Converter Applications

- Excellent switching times: $t_f = 0.5 \mu s$ (max) ($I_C = 1.2 A$)
- High breakdown voltage: $V_{CEO} = 800 V$
- High DC current gain: $h_{FE} = 15$ (min) ($I_C = 0.15 A$)

Maximum Ratings ($T_c = 25^\circ C$)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	900	V
Collector-emitter voltage	V_{CEO}	800	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	DC	I_C	3
	Pulse	I_{CP}	5
Base current	I_B	1	A
Collector power dissipation	$T_a = 25^\circ C$	P_C	1.5
	$T_c = 25^\circ C$		40
Junction temperature	T_j	150	$^\circ C$
Storage temperature range	T_{stg}	-55 to 150	$^\circ C$

Unit: mm

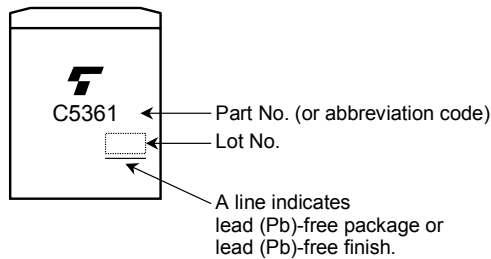


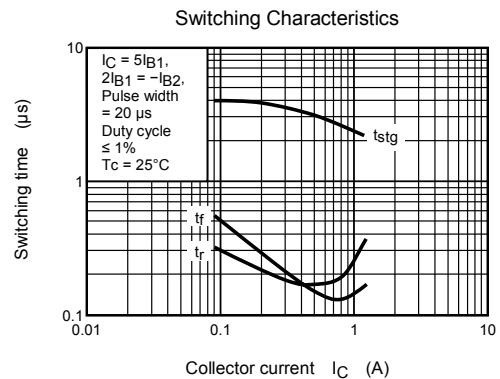
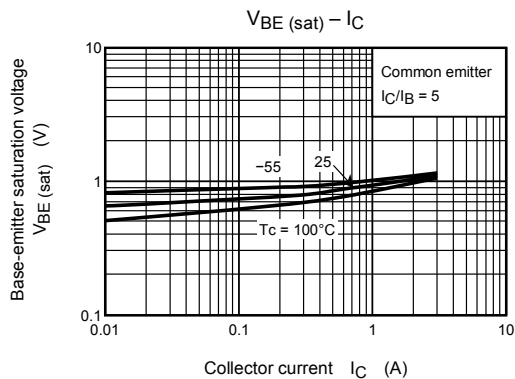
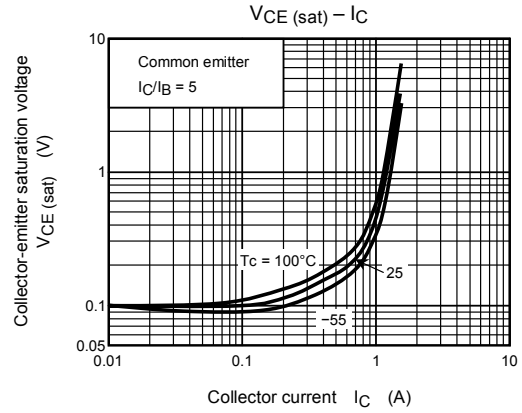
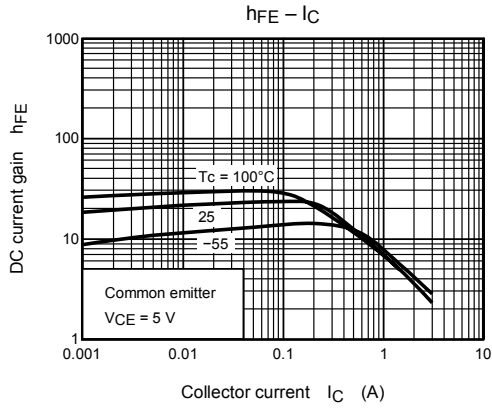
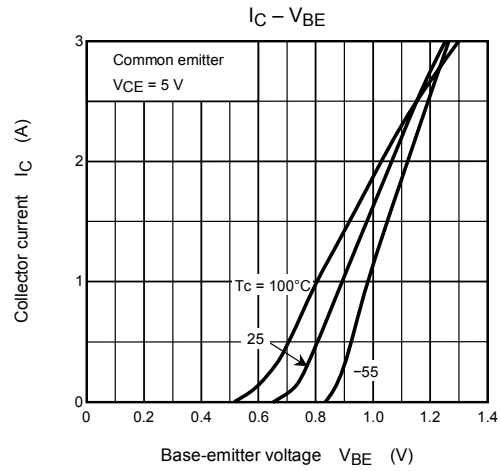
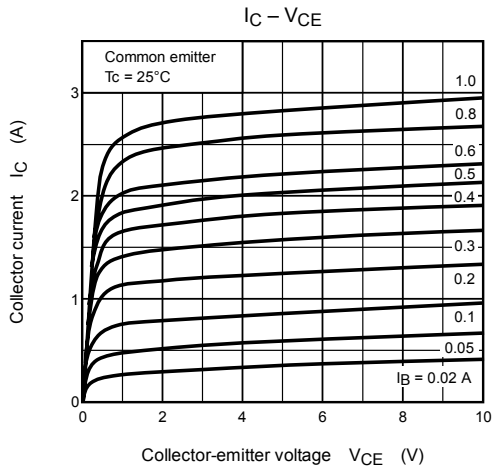
Weight: 1.5 g (typ.)

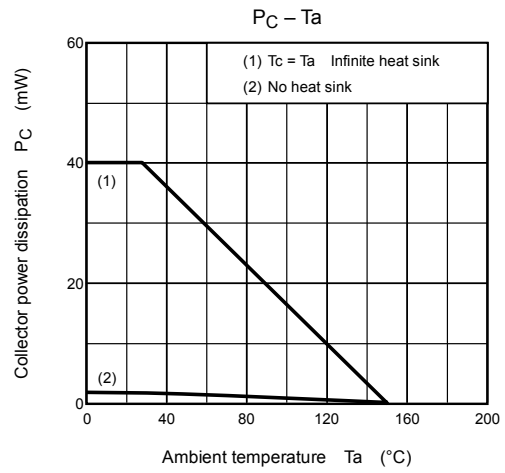
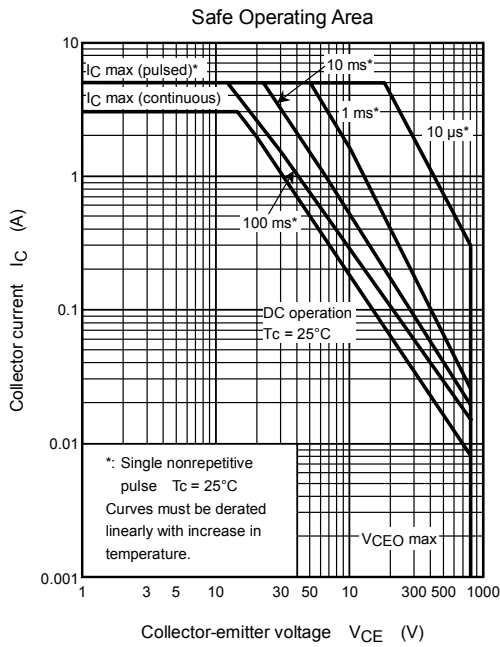
Electrical Characteristics (Tc = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = 720 \text{ V}, I_E = 0$	—	—	100	μA
Emitter cut-off current		I_{EBO}	$V_{EB} = 7 \text{ V}, I_C = 0$	—	—	10	mA
Collector-base breakdown voltage		$V_{(BR)CBO}$	$I_C = 1 \text{ mA}, I_E = 0$	900	—	—	V
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	800	—	—	V
DC current gain		$h_{FE(1)}$	$V_{CE} = 5 \text{ V}, I_C = 1 \text{ mA}$	10	—	—	
		$h_{FE(2)}$	$V_{CE} = 5 \text{ V}, I_C = 0.15 \text{ A}$	15	—	—	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = 1.2 \text{ A}, I_B = 0.24 \text{ A}$	—	—	1.0	V
Base-emitter saturation voltage		$V_{BE(sat)}$	$I_C = 1.2 \text{ A}, I_B = 0.24 \text{ A}$	—	—	1.3	V
Switching time	Rise time	t_r	<p>$V_{CC} \approx 360 \text{ V}$ $20 \mu\text{s}$ I_C 300Ω Input I_{B1} I_{B2} Output $I_{B1} = 0.24 \text{ A}, I_{B2} = -0.48 \text{ A}$ duty cycle $\leq 1\%$</p>	—	—	0.7	μs
	Storage time	t_{stg}		—	—	4.0	
	Fall time	t_f		—	—	0.5	

Marking







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