

TOSHIBA

2SC5361

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5361

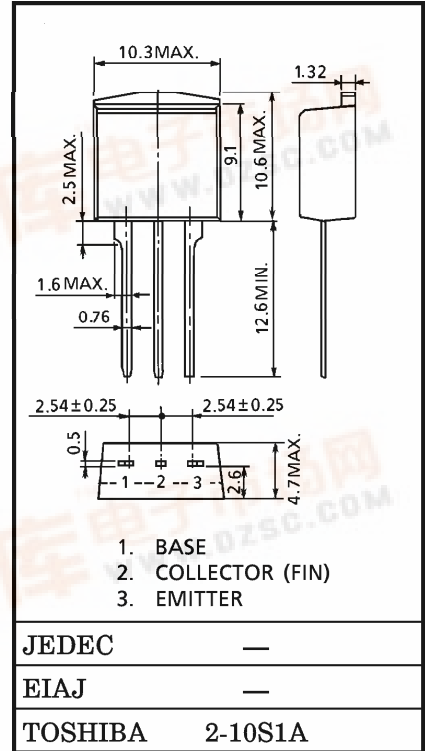
SWITCHING REGULATOR APPLICATIONS
HIGH VOLTAGE SWITCHING APPLICATIONS
DC-DC CONVERTER APPLICATIONS

Unit in mm

- Excellent Switching Times : $t_f = 0.5 \mu s$ (Max.) ($I_C = 1.2 A$)
- High Collectors Breakdown Voltage : $V_{CEO} = 800 V$
- High DC Current Gain : $h_{FE} = 15$ (Min.) ($I_C = 0.15 A$)

MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	900	V
Collector-Emitter Voltage		V_{CE0}	800	V
Emitter-Base Voltage		V_{EB0}	7	V
Collector Current	DC	I_C	3	A
	Pulse	I_{CP}	5	
Base Current		I_B	1	A
Collector Power Dissipation	$T_a = 25^\circ C$	P_C	1.5	W
	$T_c = 25^\circ C$		40	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$



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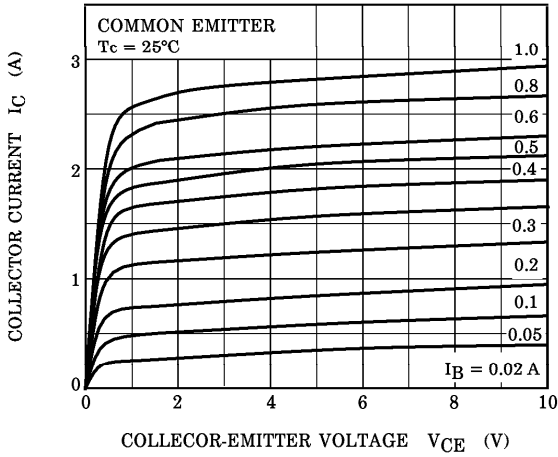
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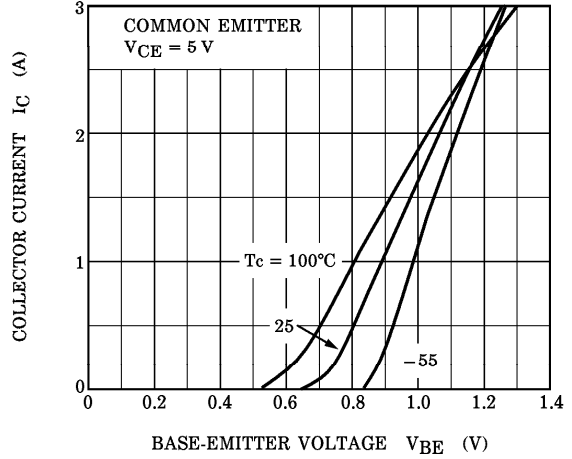
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		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	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C = 1 \text{ mA}, I_B = 0$	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> $20 \mu\text{s}$ $V_{CC} = 360 \text{ V}$ I_{B1} I_C 300Ω INPUT OUTPUT </p>	—	—	0.7	μs
	Storage Time	t_{stg}		—	—	4.0	
	Fall Time	t_f		$I_{B1} = 0.24 \text{ A}, I_{B2} = -0.48 \text{ A}$ DUTY CYCLE $\leq 1\%$	—	—	

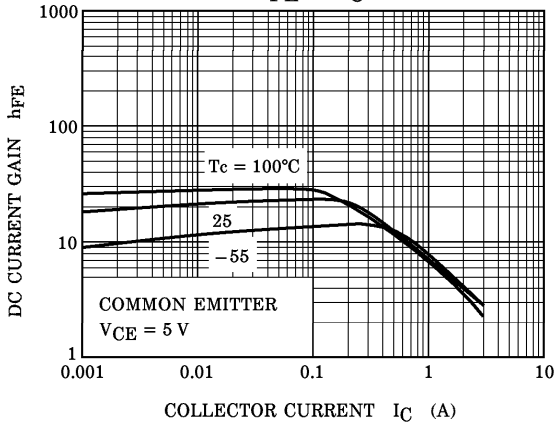
$I_C - V_{CE}$



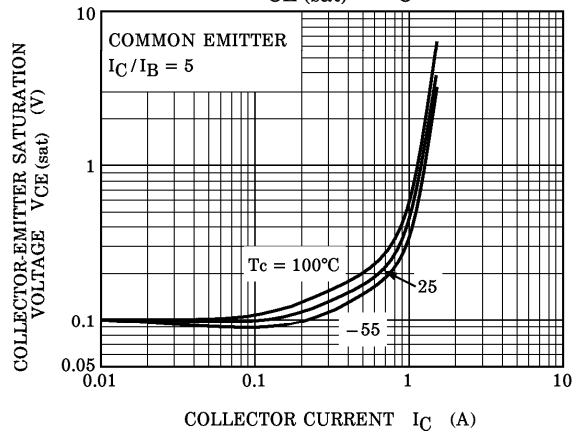
$I_C - V_{BE}$



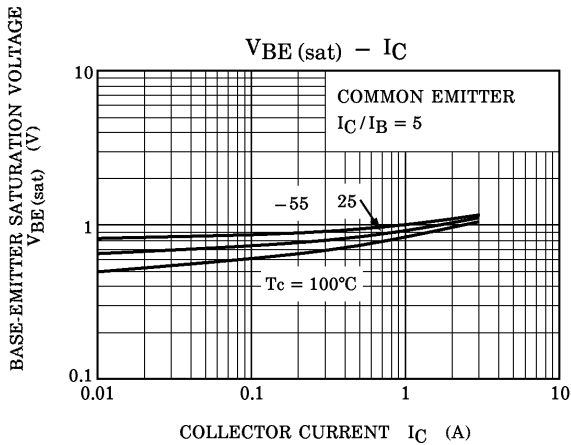
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



SWITCHING CHARACTERISTICS

