

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (DARLINGTON)

2SD2129

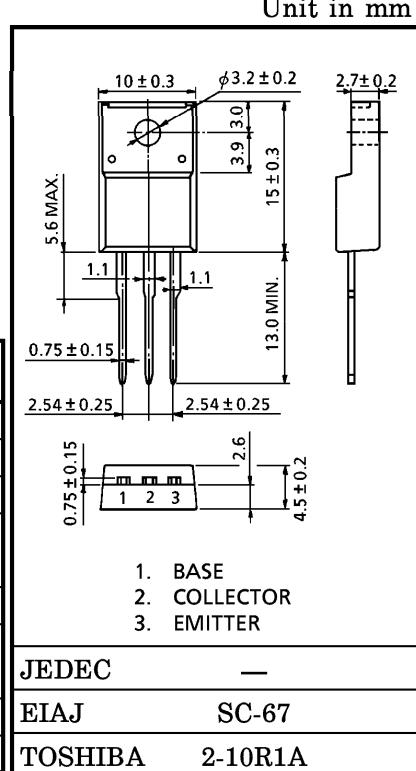
HIGH POWER SWITCHING APPLICATIONS

HAMMER DRIVE, PULSE MOTOR DRIVE APPLICATIONS

- High DC Current Gain
: $h_{FE} = 2000$ (Min.)
- Low Saturation Voltage : $V_{CE}(\text{sat}) = 1.5V$ (Max.)

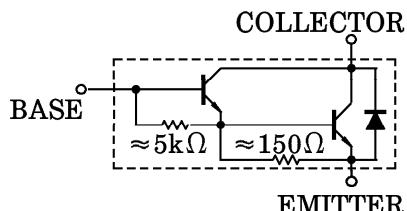
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	100	V
Collector-Emitter Voltage		V_{CEO}	100	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	3	A
	Pulse	I_{CP}	5	
Base Current		I_B	0.5	A
Collector Power Dissipation	$T_a = 25^\circ\text{C}$	P_C	2.0	W
	$T_c = 25^\circ\text{C}$		20	
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	$-55 \sim 150$	$^\circ\text{C}$

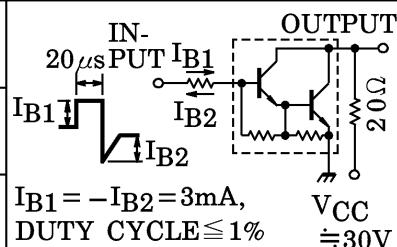


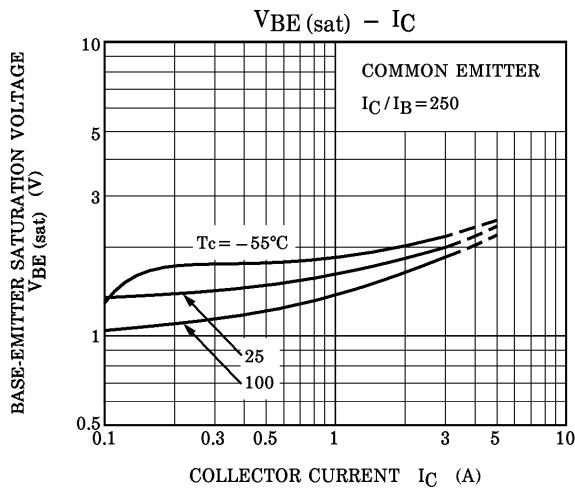
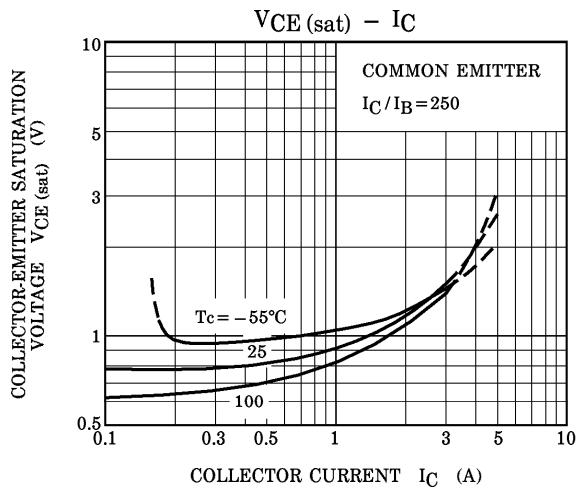
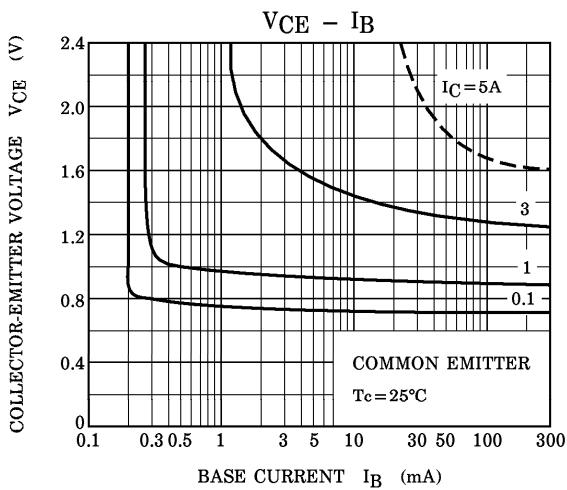
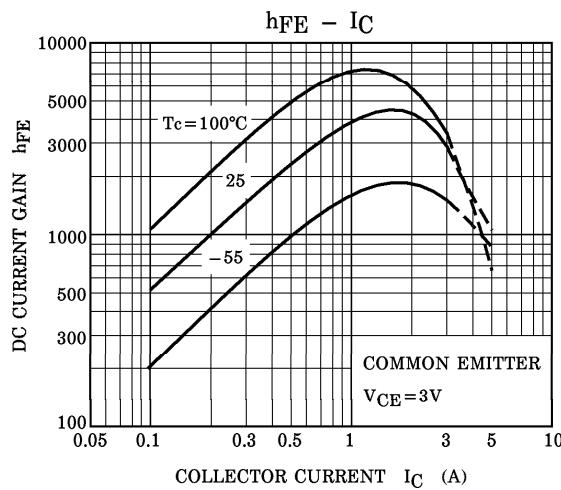
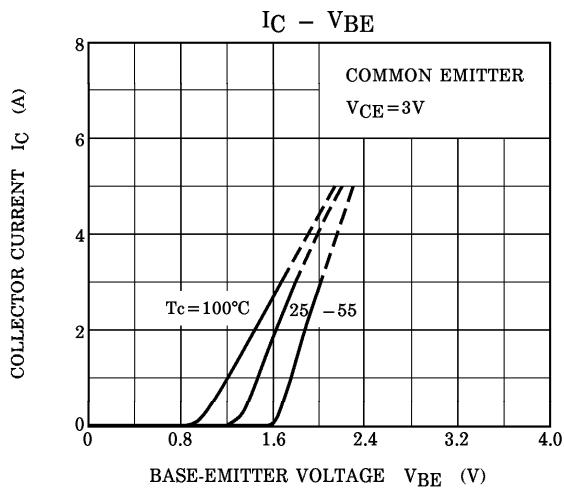
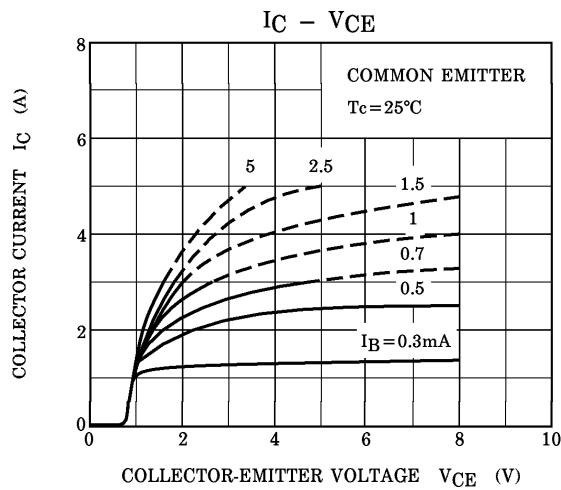
Weight : 1.7g (Typ.)

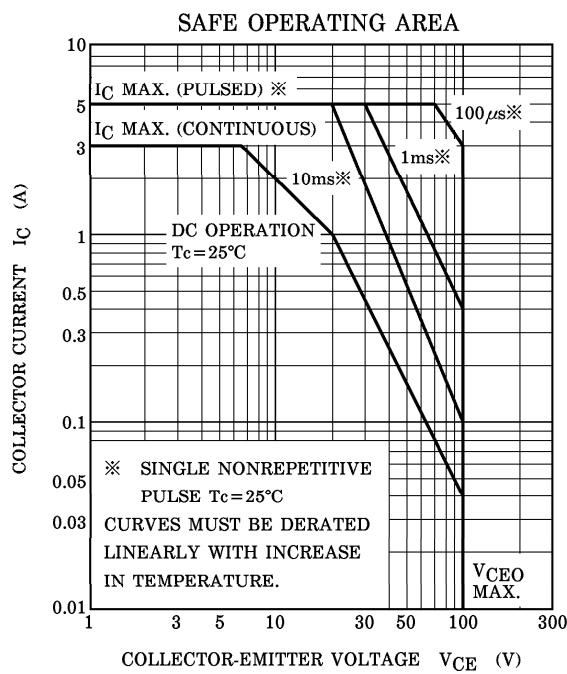
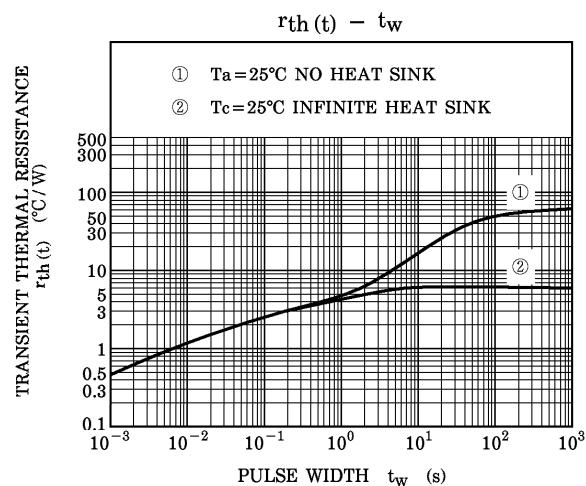
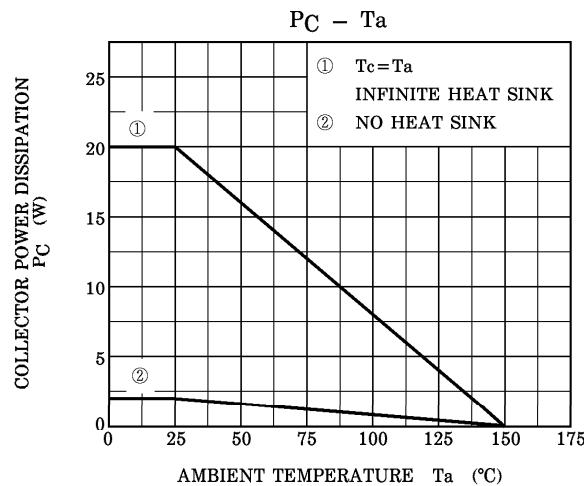
EQUIVALENT CIRCUIT



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} =100V, I _E =0	—	—	100	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} =6V, I _C =0	—	—	2.5	mA
Collector-Emitter Breakdown Voltage	V _(BR) CEO	I _C =30mA, I _B =0	100	—	—	V
DC Current Gain	h _{FE} (1)	V _{CE} =3V, I _C =1.5A	2000	—	15000	
	h _{FE} (2)	V _{CE} =3V, I _C =3A	1000	—	—	
Collector-Emitter Saturation Voltage	V _{CE} (sat) (1)	I _C =1.5A, I _B =3mA	—	—	1.5	V
	V _{CE} (sat) (2)	I _C =3A, I _B =12mA	—	—	2.0	
Base-Emitter Saturation Voltage	V _{BE} (sat)	I _C =1.5A, I _B =3mA	—	—	2.0	V
Switching Time	Turn-on Time	t _{on}		—	1.0	μs
	Storage Time	t _{stg}		—	5.0	
	Fall Time	t _f		—	2.0	





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