TOSHIBA Transistor Silicon NPN Triple Diffused Type (Darlington power transistor)

2SD2571

High Power Switching Applications

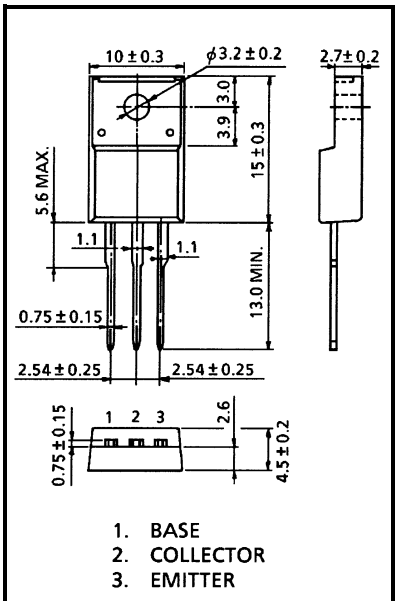
Hammer Drive, Pulse Motor Drive Applications

- High DC current gain: h_{FE} = 2000 (min) (V_{CE} = 2 V, I_C = 1 A)
- Low saturation voltage: $V_{CE\ (sat)}$ = 1.5 V (max) (I_C = 1 A)

Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	100 ± 10	V
Collector-emitter voltage		V_{CEO}	100 ± 10	V
Emitter-base voltage		V_{EBO}	8	V
Collector current	DC	I_C	2	A
	Pulse	I_{CP}	3	
Base current		I_B	0.5	A
Collector power dissipation	Ta = 25°C	P_C	2.0	W
	Tc = 25°C		25	
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	−55 to 150	°C

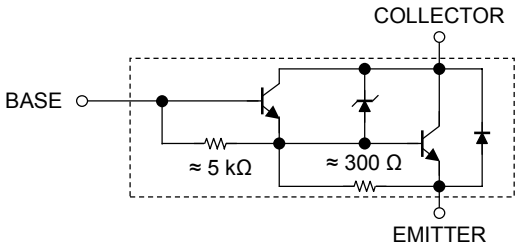
Unit: mm



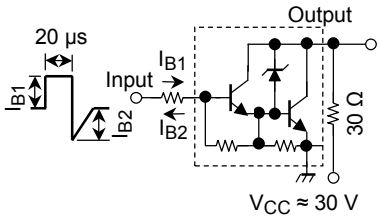
JEDEC	—
JEITA	SC-67
TOSHIBA	2-10R1A

Weight: 1.7 g (typ.)

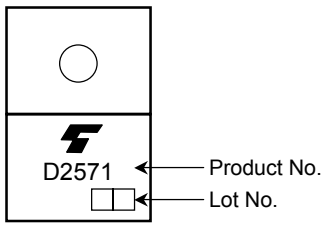
Equivalent Circuit



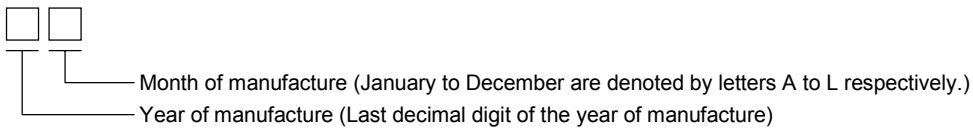
Electrical Characteristics (Ta = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	V_{CB} = 80 V, I_E = 0	—	—	100	μA
Emitter cut-off current		I_{EBO}	V_{EB} = 8 V, I_C = 0	0.8	—	4.0	mA
Collector-emitter breakdown voltage		$V_{(BR)\ CEO}$	I_C = 10 mA, I_B = 0	85	100	115	V
DC current gain		$h_{FE\ (1)}$	V_{CE} = 2 V, I_C = 1 A	2000	—	15000	
		$h_{FE\ (2)}$	V_{CE} = 2 V, I_C = 1.5 A	1000	—	—	
Collector-emitter saturation voltage		$V_{CE\ (sat)}$	I_C = 1 A, I_B = 1 mA	—	—	1.5	V
Base-emitter saturation voltage		$V_{BE\ (sat)}$	I_C = 1 A, I_B = 1 mA	—	—	2.0	V
Switching time	Turn-on time	t_{on}	 $I_{B1} = -I_{B2}$ = 1 mA, duty cycle ≤ 1%	—	0.45	—	μs
	Storage time	t_{stg}		—	2.0	—	
	Fall time	t_f		—	0.4	—	

Marking



Explanation of Lot No.



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