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

2SD2384

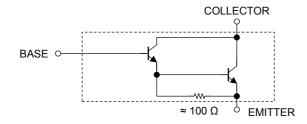
Power Amplifier Applications

- High breakdown voltage: $V_{\rm CEO} = 140 \text{ V (min)}$
- Complementary to 2SB1555

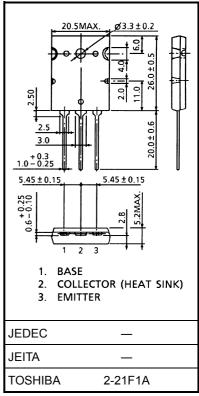
Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	140	V
Collector-emitter voltage	V _{CEO}	140	٧
Emitter-base voltage	V _{EBO}	5	٧
Collector current	IC	7	Α
Base current	Ι _Β	0.1	Α
Collector power dissipation (Tc = 25°C)	P _C	100	W
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	−55 to 150	°C

Equivalent Circuit



Unit: mm



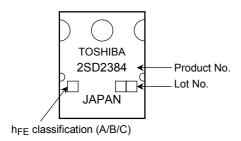
Weight: 9.75 g (typ.)

Electrical Characteristics (Ta = 25°C)

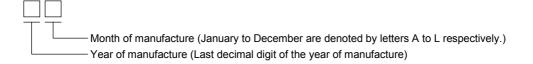
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} = 140 V, I _E = 0	_	_	5.0	μΑ
Emitter cut-off current	I _{EBO}	V _{EB} = 5 V, I _C = 0	_	_	5.0	μΑ
Collector-emitter breakdown voltage	V (BR) CEO	I _C = 50 mA, I _B = 0	140	_	_	V
DC current gain	h _{FE (1)} (Note)	V _{CE} = 5 V, I _C = 6 A	5000	-	30000	_
	h _{FE (2)}	V _{CE} = 5 V, I _C = 10 A	2000	_	_	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = 6 A, I _B = 6 mA	_	_	2.5	V
Base-emitter voltage	V _{BE}	V _{CE} = 5 V, I _C = 6 A	_	_	3.0	V
Transition frequency	f _T	V _{CE} = 5 V, I _C = 1 A	_	30	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	90	_	pF

Note: h_{FE (1)} classification A: 5000 to 12000, B: 9000 to 18000, C: 15000 to 30000

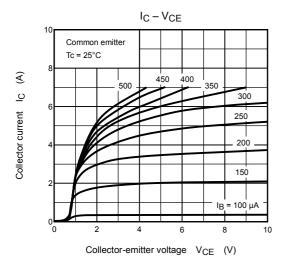
Marking

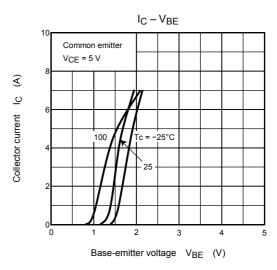


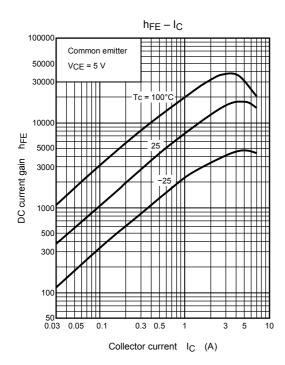
Explanation of Lot No.

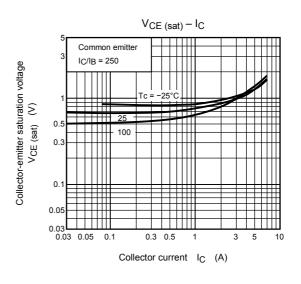


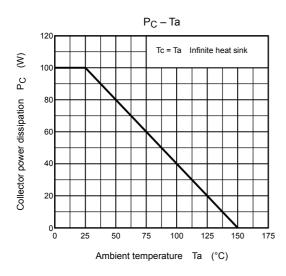
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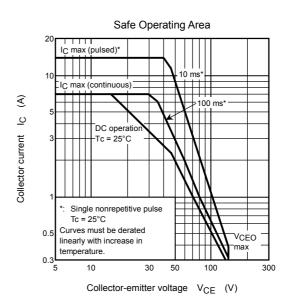












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