

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (DARLINGTON POWER TRANSISTOR)

2SD2387

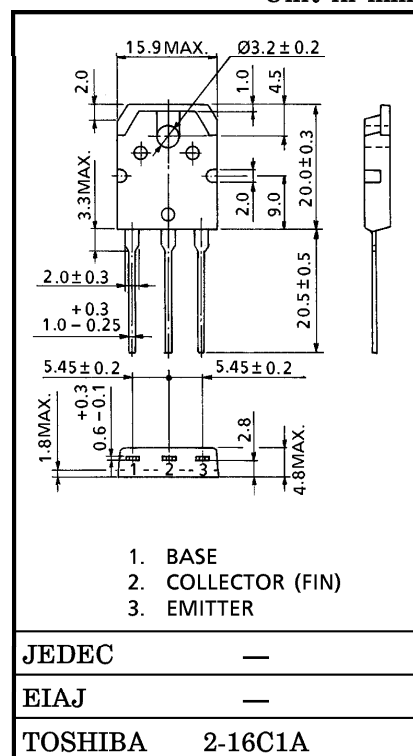
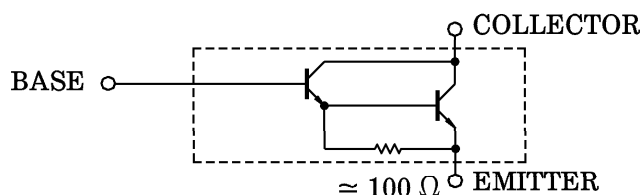
POWER AMPLIFIER APPLICATIONS

- High Breakdown Voltage : $V_{CEO} = 140 \text{ V (Min.)}$
- Complementary to 2SB1558

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	140	V
Collector-Emitter Voltage	V_{CEO}	140	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	8	A
Base Current	I_B	0.1	A
Collector Power Dissipation ($T_c = 25^\circ\text{C}$)	P_C	80	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 150$	$^\circ\text{C}$

EQUIVALENT CIRCUIT

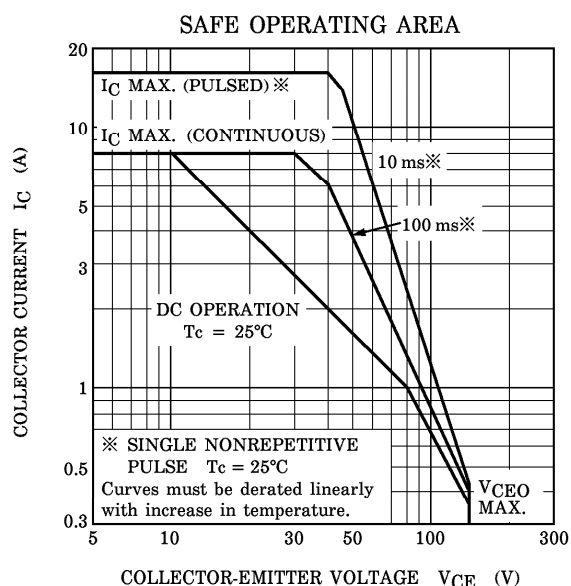
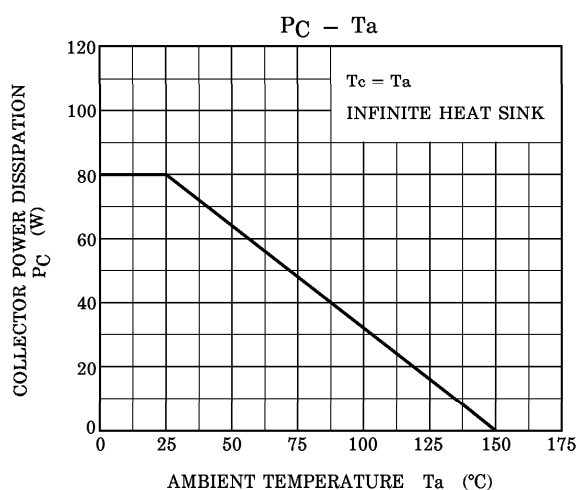
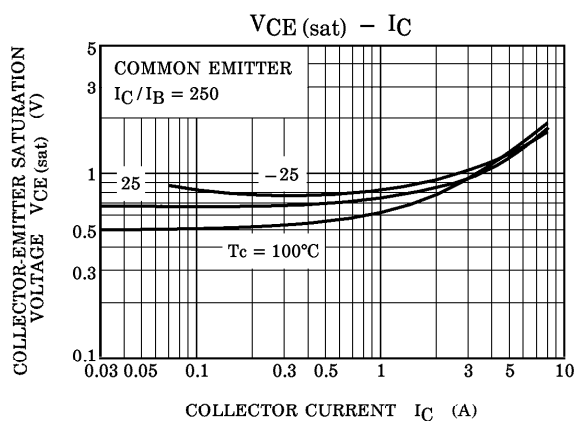
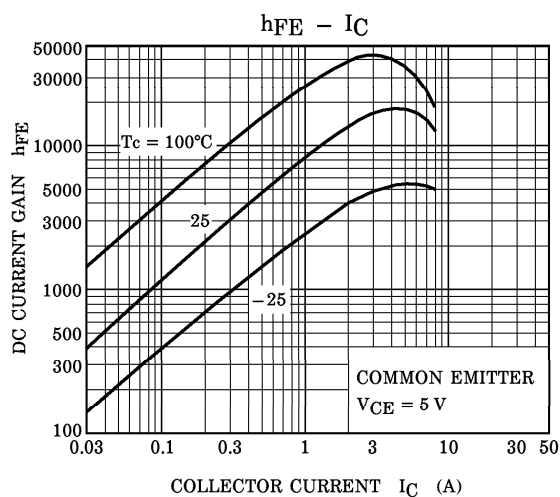
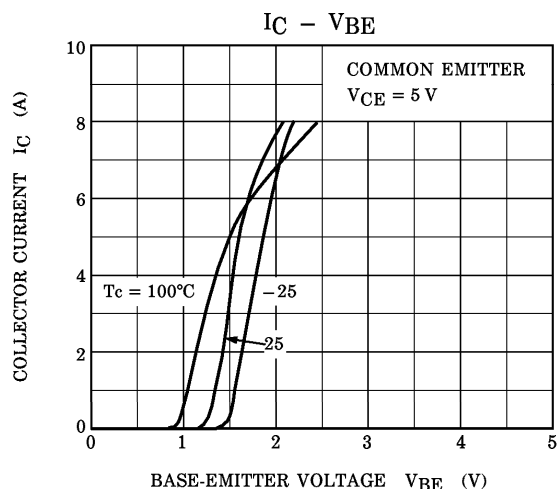
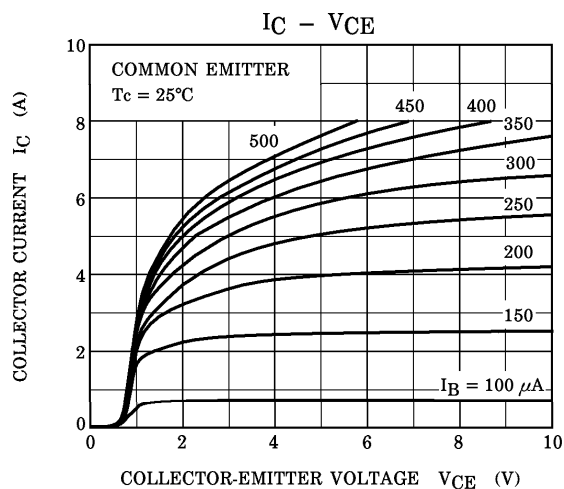


Weight : 4.7 g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} = 140 V, I _E = 0	—	—	5.0	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 5 V, I _C = 0	—	—	5.0	μA
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 = 7 A	5000	—	30000	
	h _{FE} (2)	V _{CE} = 5 V, I _C = 12 A	2000	—	—	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C = 7 A, I _B = 7 mA	—	—	2.5	V
Base-Emitter Voltage	V _{BE}	V _{CE} = 5 V, I _C = 7 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	—	110	—	pF

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



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