TOSHIBA Transistor Silicon NPN Triple Diffused Type

2SD2462

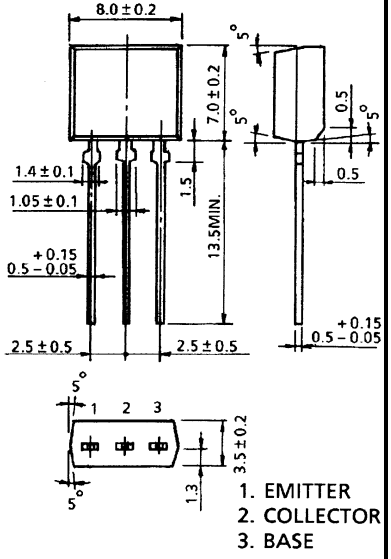
Power Amplifier Applications

- High DC current gain: $h_{FE\ (1)}$ = 800 to 3200 (V_{CE} = 5 V, I_C = 0.2 A)
- Low saturation voltage: $V_{CE\ (sat)}$ = 0.4 V (typ.) (I_C = 1 A, I_B = 10 mA)
- Complementary to 2SB1602

Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	60	V
Collector-emitter voltage		V_{CEO}	60	V
Emitter-base voltage		V_{EBO}	7	V
Collector current	DC	I_C	3	A
	Pulse	I_{CP}	6	
Base current		I_B	0.6	A
Collector power dissipation		P_C	1.3	W
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	−55 to 150	°C

Unit: mm



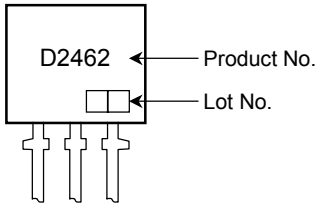
JEDEC	—
JEITA	—
TOSHIBA	2-8M1A

Weight: 0.55 g (typ.)

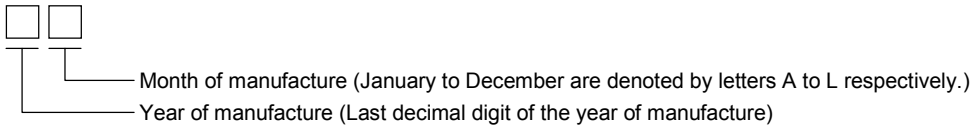
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 60 V, I_E = 0	—	—	100	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 7 V, I_C = 0	—	—	100	μA
Collector-emitter breakdown voltage	$V_{(BR)\ CEO}$	I_C = 50 mA, I_B = 0	60	—	—	V
DC current gain	$h_{FE\ (1)}$	V_{CE} = 5 V, I_C = 0.2 A	800	—	3200	
	$h_{FE\ (2)}$	V_{CE} = 5 V, I_C = 1.5 A	350	—	—	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 1 A, I_B = 10 mA	—	0.4	1.0	V
Base-emitter voltage	V_{BE}	V_{CE} = 5 V, I_C = 0.5 A	—	0.7	1.0	V
Transition frequency	f_T	V_{CE} = 5 V, I_C = 0.5 A	—	18	—	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz	—	42	—	pF

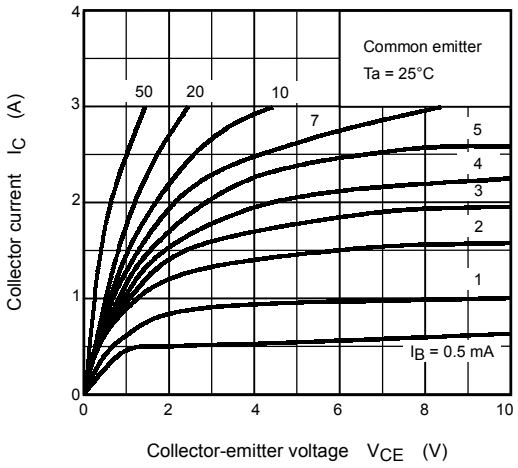
Marking



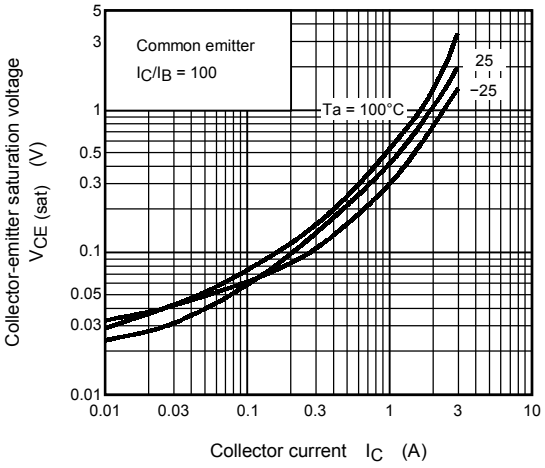
Explanation of Lot No.



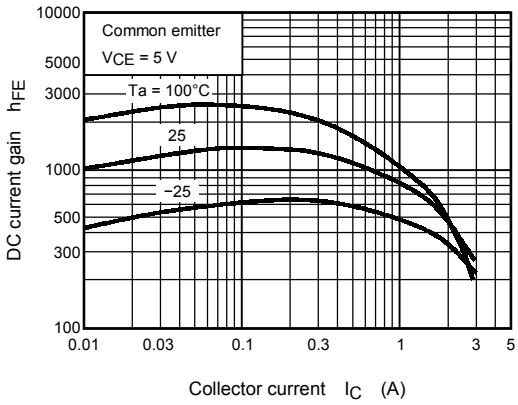
$I_C - V_{CE}$



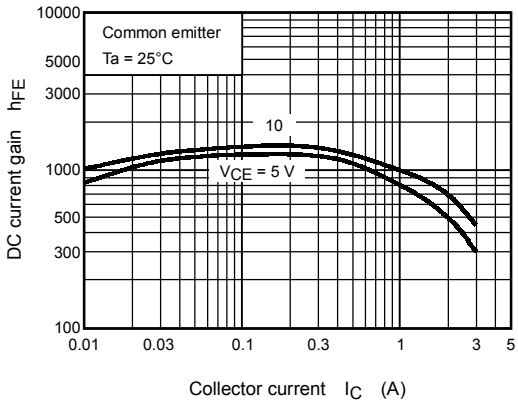
$V_{CE\ (sat)} - I_C$



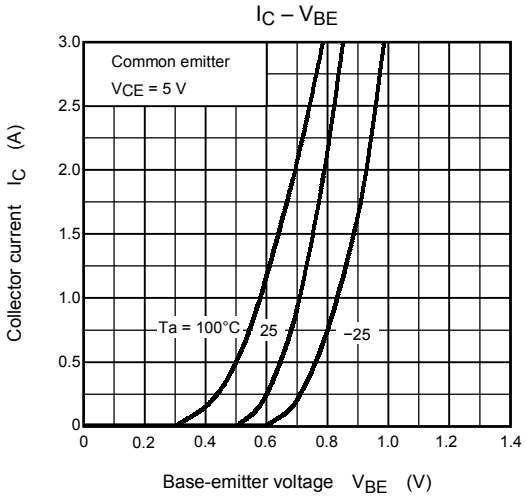
$h_{FE} - I_C$



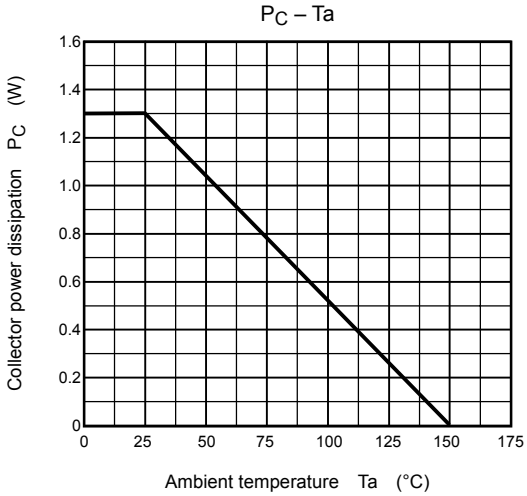
$h_{FE} - I_C$



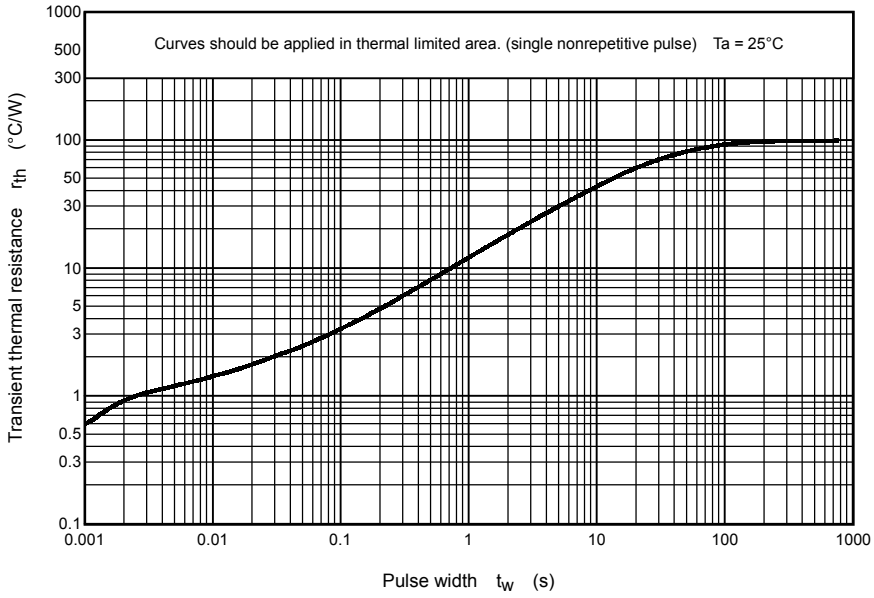
$I_C - V_{BE}$



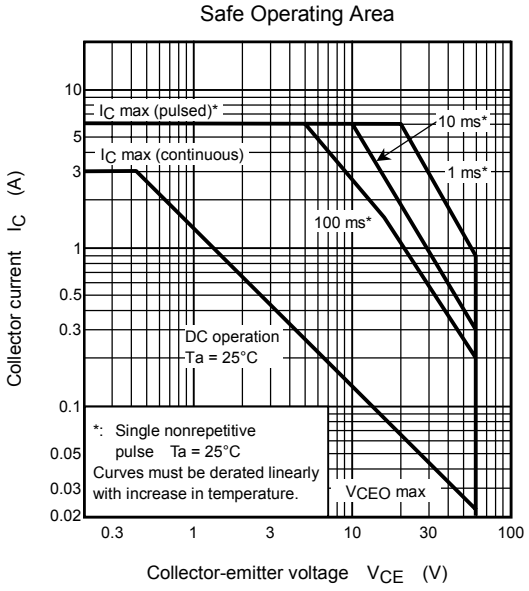
$P_C - Ta$



$r_{th} - t_w$



Safe Operating Area



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