

トランジスタ

2SD803

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シリコン NPN 拡散接合メサ形 / Si NPN Diffused Junction Mesa

大電力増幅用 / High Power Amplifier

■ 特徴 / Features

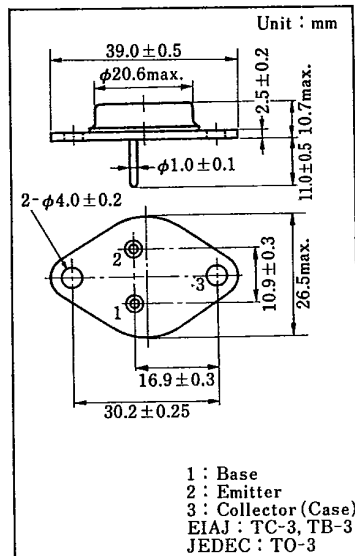
- 拡散接合メサ構造のため安全動作領域 (ASO) が大きい。 / Wide area of safe operation realized by diffused junction mesa structure.
- ドライバトランジスタと出力トランジスタの電流配分のバランスが良く、サージ電流に強い。 / High surge with standing capability by well balanced current distribution between driver and output transistor.
- コレクタ電流 40 A で、直流電流増幅率は 7 以上。 / h_{FE} higher than 7 at $I_C = 40$ A.
- 直流電流増幅率 h_{FE} が高い。 / High h_{FE}

■ 絶対最大定格 / Absolute Maximum Ratings (Ta = 25 °C)

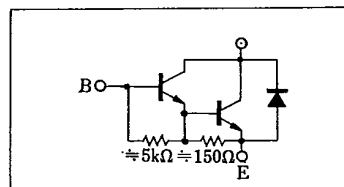
Item	Symbol	Value	Unit
コレクタ・ベース電圧	V_{CBO}	120	V
コレクタ・エミッタ電圧	V_{CEO}	100	V
エミッタ・ベース電圧	V_{EBO}	6	V
コレクタ電流	I_C	8	A
ベース電流	I_B	1	A
コレクタ損失 (Tc = 25 °C)	P_C	100	W
接合部温度	T_j	150	°C
保存温度	T_{stg}	-65 ~ +150	°C

■ 電気的特性 / Electrical Characteristics (Ta = 25 °C)

Item	Symbol	Condition	min.	typ.	max.	Unit
コレクタシャ断電流	I_{CBO}	$V_{CB} = 120$ V, $I_E = 0$			100	μ A
エミッタシャ断電流	I_{EBO}	$V_{EB} = 6$ V, $I_C = 0$			10	mA
コレクタ・エミッタ電圧	V_{CEO}	$I_C = 50$ mA, $I_B = 0$	100			V
直流電流増幅率	h_{FE1}	$V_{CE} = 4$ V, $I_C = 1$ A	2000			
	h_{FE2}	$V_{CE} = 4$ V, $I_C = 40$ A	7			
コレクタ・エミッタ飽和電圧	$V_{CE(sat)}$	$I_C = 3$ A, $I_B = 30$ mA			1.5	V



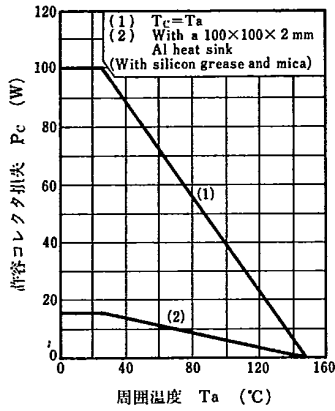
内部接続図 / Connection Diagram



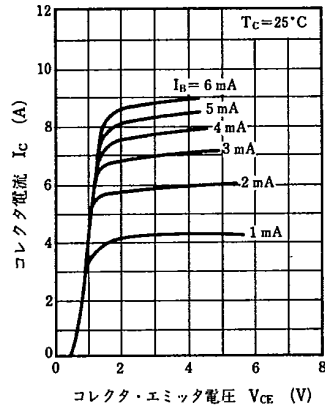
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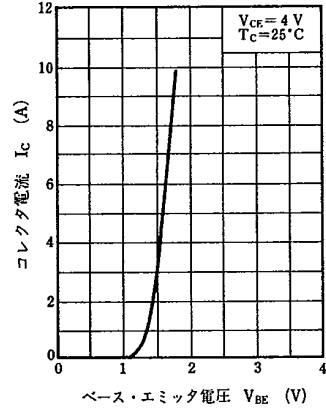
$P_C - T_a$



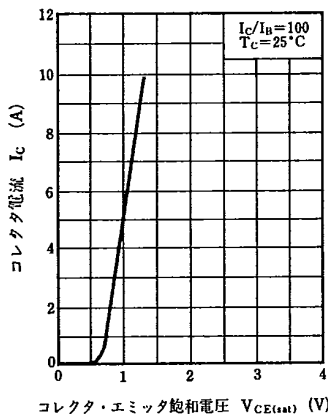
$I_C - V_{CE}$



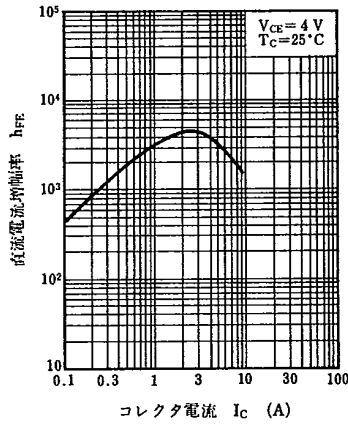
$I_C - V_{BE}$



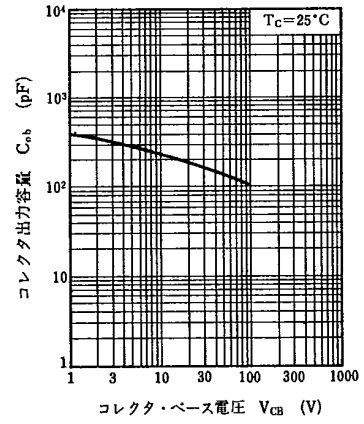
$I_C - V_{CE(sat)}$

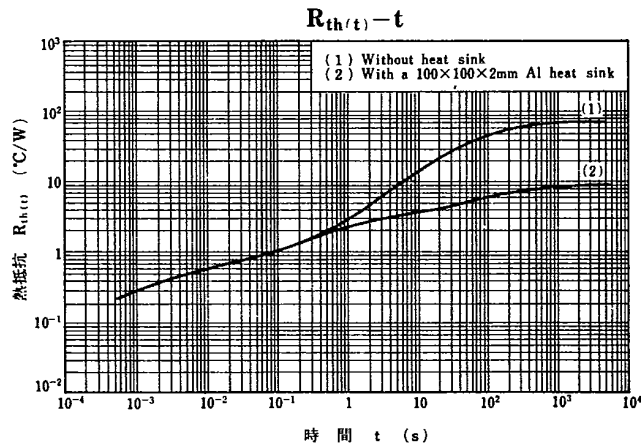
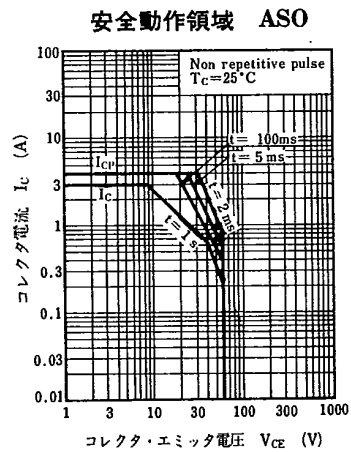
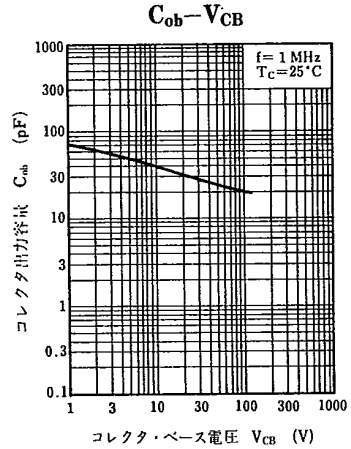
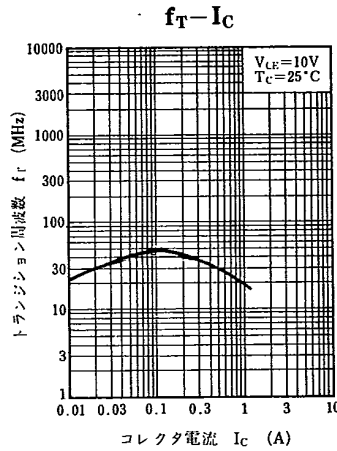
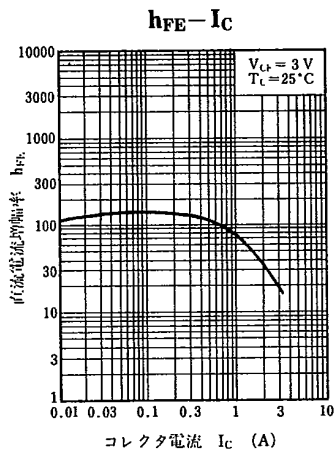
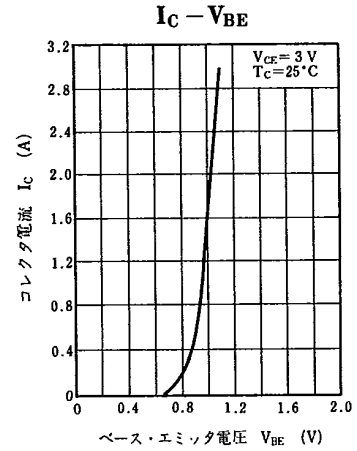
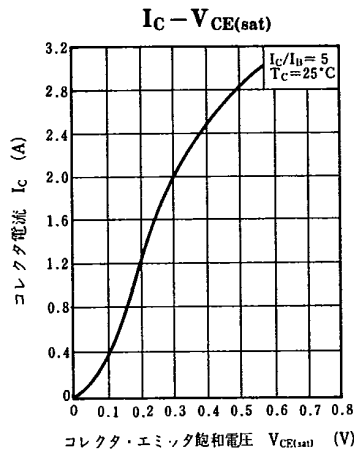
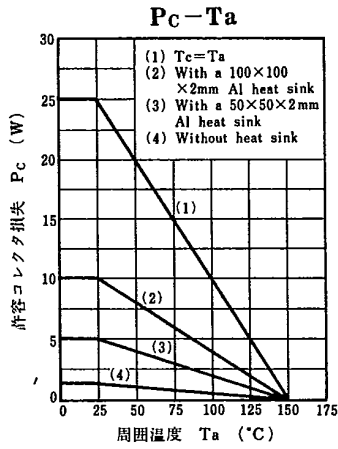


$h_{FE} - I_C$



$C_{ob} - V_{CB}$

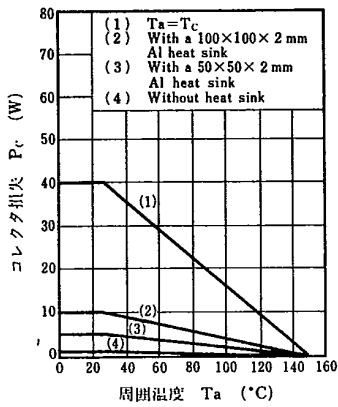




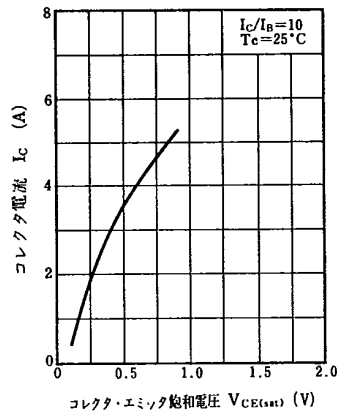
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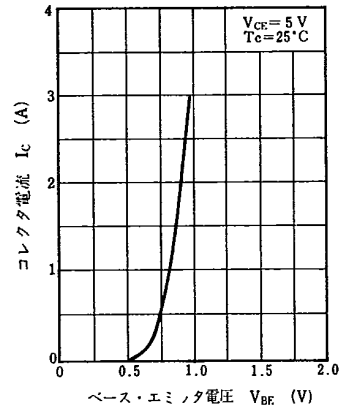
$P_C - T_a$



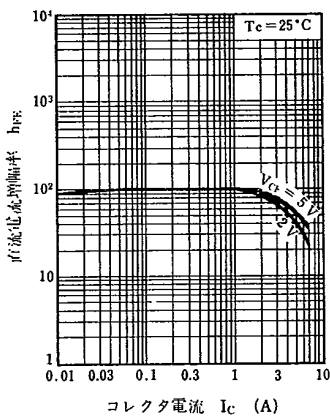
$I_C - V_{CE(sat)}$



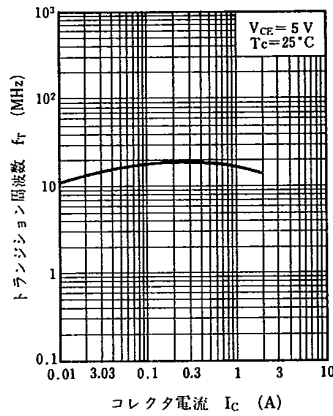
$I_C - V_{BE}$



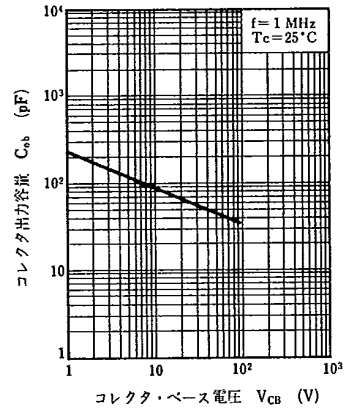
$h_{FE} - I_C$



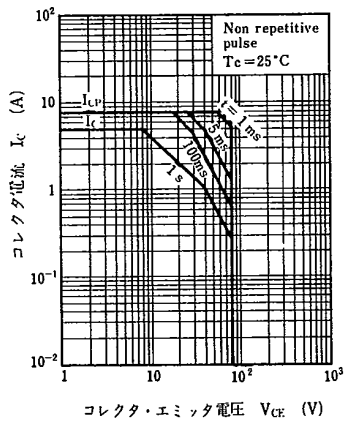
$f_T - I_C$



$C_{ob} - V_{CB}$



安全動作領域 ASO



$R_{th(t)} - t$

