

2SC1985
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Silicon NPN Triple Diffused Mesa

☆ Complement to types 2SA770 and 2SA771

Application Example :

General and Industrial Purpose

- Outline Drawing 1.....MT-25(TO220)
- Test Circuit.....③

Electrical Characteristics

Symbol	Conditions	2SC1985	2SC1986	Unit
I_{CBO}	$V_{CB} =$	1.0max 80	1.0max 100	mA V
I_{EBO}	$V_{EB} = 6V$	1.0max		mA
$V_{(BR)CEO}$	$I_C = 25mA$	60min	80min	V
h_{FE}	$V_{CE} = 4V, I_C = 1A$	40min		
$V_{CE(sat)}$	$I_C = 3A, I_B = 0.3A$	1.0max		V
f_T	$V_{CE} = 12V, I_E = -0.5A$	10typ		MHz

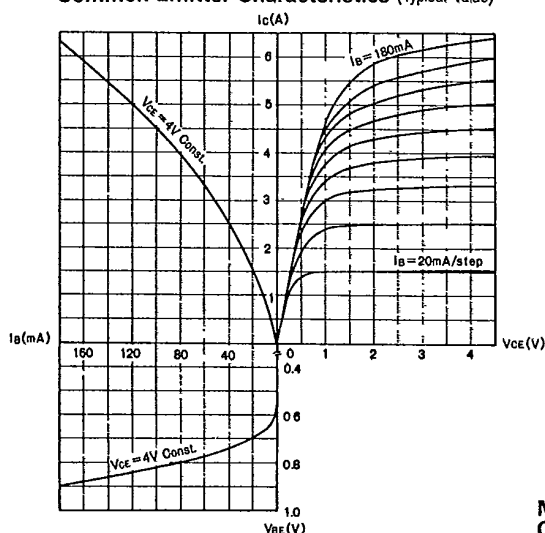
Typical Switching Characteristics (Emitter Common)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{B2} (V)	I_{B1} (mA)	I_{B2} (mA)	t_r (μ s)	t_{stg} (μ s)	t_f (μ s)
9	3	3	-5	300	-300	1.1_{typ}	1.8_{typ}	0.55_{typ}

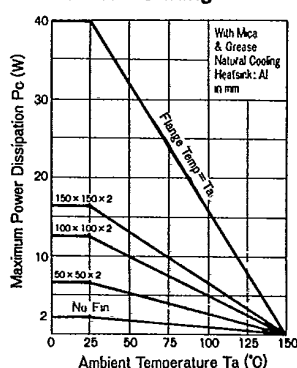
Absolute Maximum Ratings

Symbol	2SC1985	2SC1986	Unit
V _{CB0}	80	100	V
V _{CE0}	60	80	V
V _{EB0}	6		V
I _C	6		A
I _B	3		A
P _C	40 (T _{FL} = 25°C)		W
T _J	150		°C
T _{sta}	-55~+150		°C

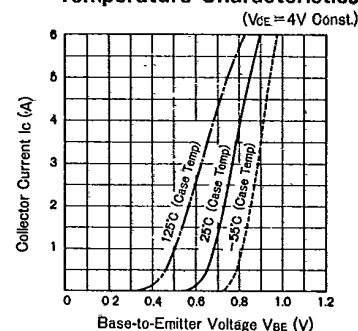
Common Emitter Characteristics (Typical Value)



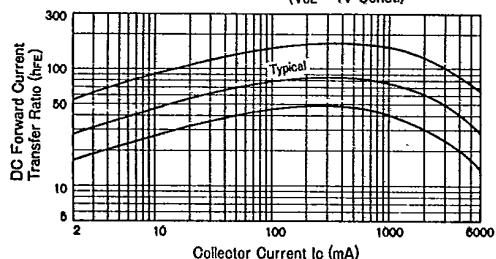
Power Derating



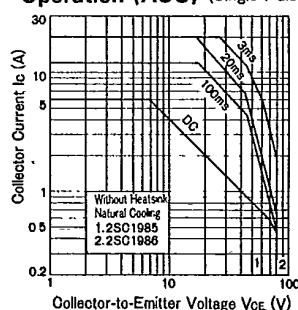
Temperature Characteristics



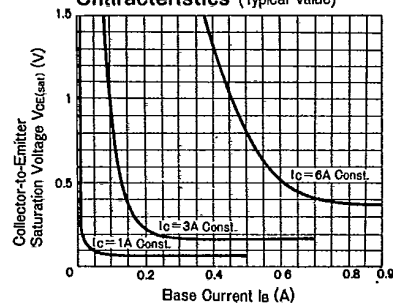
DC Current Gain Characteristics



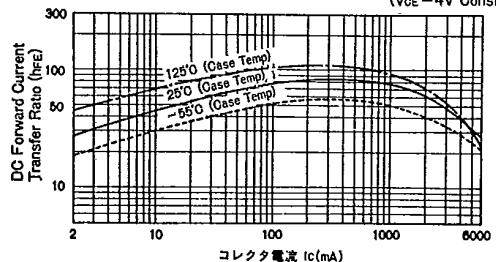
Maximum Areas For Safe Operation (ASO) (Single Pulse)



Collector-to-Emitter Saturation Characteristics (Typical Value)



DC Current Gain Temperature Characteristics



Transient Thermal Resistance Characteristics

