

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	1.0max	mA
I_{EBO}	$V_{EB} = 6V$	80	100	V
$V_{(BR)CEO}$	$I_C = 25mA$	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

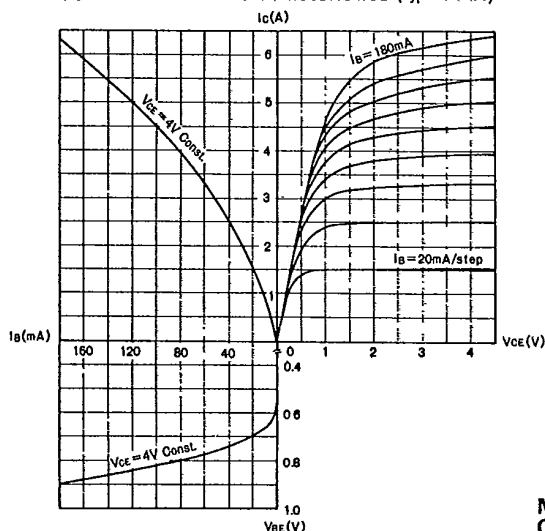
Absolute Maximum Ratings

Symbol	2SC1985	2SC1986	Unit
V_{CBO}	80	100	V
V_{CEO}	60	80	V
V_{EBO}	6		V
I_C	6		A
I_B	3		A
P_C	40 ($T_{FL} = 25^\circ C$)		W
T_J	150		$^\circ C$
T_{stg}	-55~+150		$^\circ C$

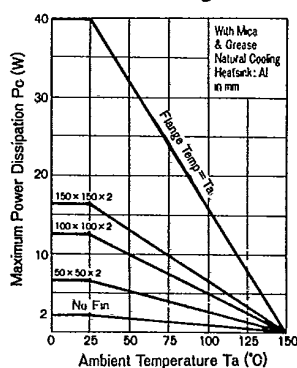
Typical Switching Characteristics (Emitter Common)

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

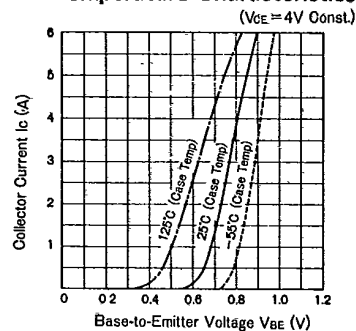
Common Emitter Characteristics (Typical Value)



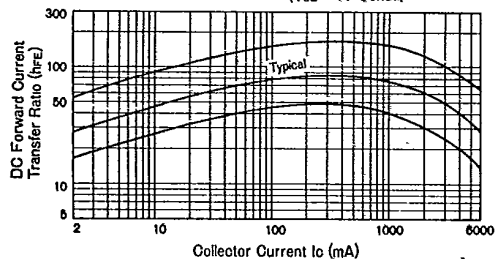
Power Derating



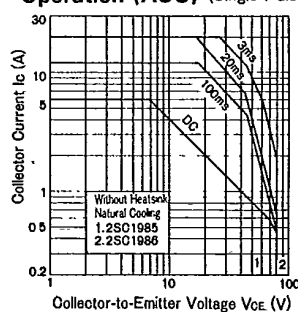
Temperature Characteristics



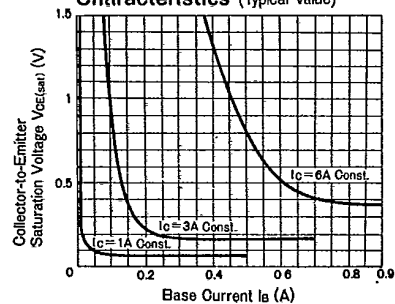
DC Current Gain Characteristics



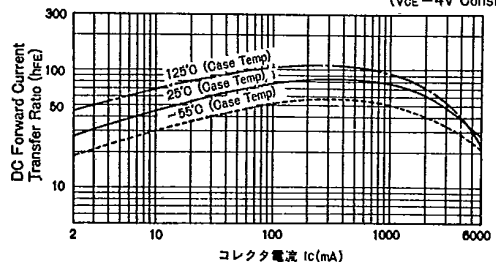
Maximum Areas For Safe Operation (ASO) (Single Pulse)



Collector-to-Emitter Saturation Characteristics (Typical Value)



DC Current Gain Temperature Characteristics



Transient Thermal Resistance Characteristics

