

2SC3855

Silicon NPN Triple Diffused Planar Transistor

☆ Complement to type 2SA1491

Application Example :
Audio and General Purpose

● Outline Drawing 2 MT-100(TO3P)

Absolute Maximum Ratings

($T_a=25^\circ\text{C}$)

Symbol	2SC3855	Unit
V_{CB0}	200	V
V_{CE0}	140	V
V_{EB0}	6	V
I_c	10	A
I_B	4	A
P_c	100 ($T_c = 25^\circ\text{C}$)	W
T_j	150	$^\circ\text{C}$
T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics

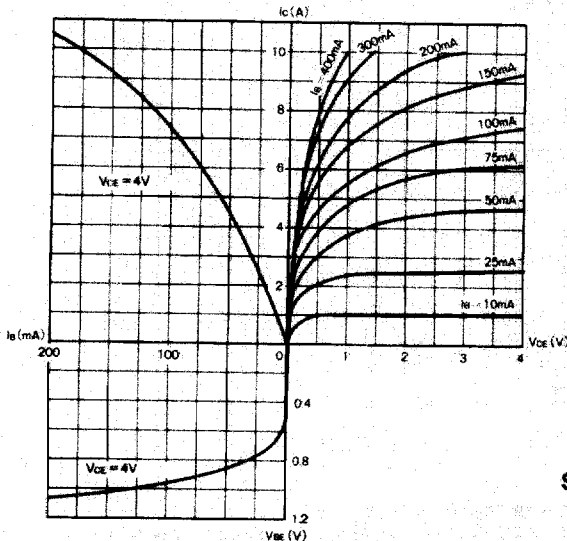
($T_a=25^\circ\text{C}$)

Symbol	Conditions	2SC3855	Unit
I_{CB0}	$V_{CB}=200\text{V}$	100max	μA
I_{EB0}	$V_{EB}=6\text{V}$	100max	μA
$V_{(BR)CEO}$	$I_c = 50\text{mA}$	140min	V
h_{FE}	$V_{CE}=4\text{V}, I_c=3\text{A}$	50min	
$V_{CE(sat)}$	$I_c = 5\text{A}, I_B=0.5\text{A}$	2.0max	V
f_T	$V_{CE}=12\text{V}, I_E=-0.5\text{A}$	20typ	MHz

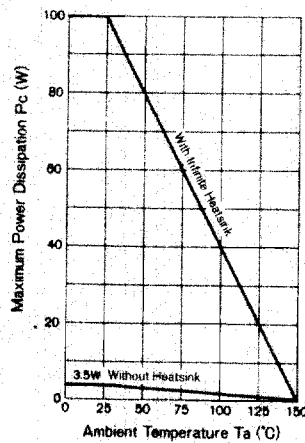
Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_c (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)	t_{on} (μs)	t_{stg} (μs)	t_f (μs)
60	12	5	10	-5	0.5	-0.5	0.3typ	2.4typ	0.4typ

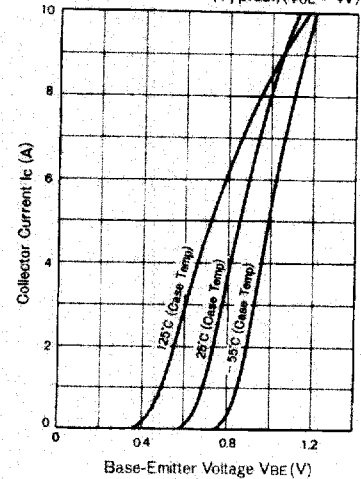
Common Emitter Characteristics (Typical)



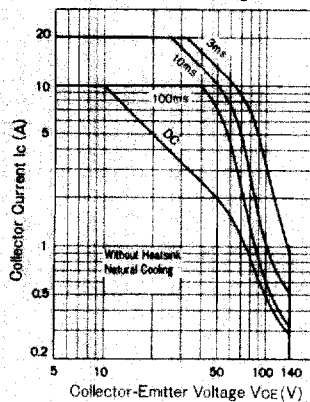
Pc-Ta Derating



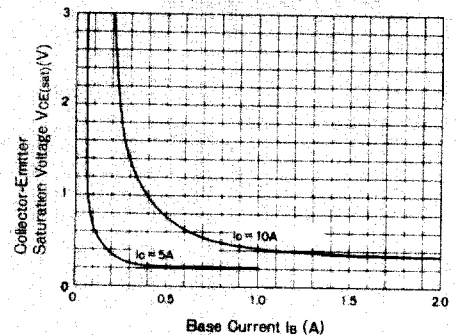
Ic-VBE Temperature Characteristics (Typical) ($V_{CE}=4\text{V}$)



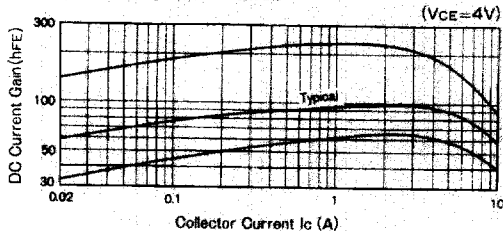
Safe Operating Area(SOA) (Single Pulse)



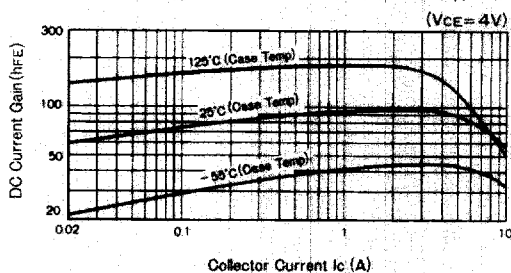
VCE(sat)-Ib Characteristics (Typical)



hFE-Ic Characteristics ($V_{CE}=4\text{V}$)



hFE-Ic Temperature Characteristics (Typical) ($V_{CE}=4\text{V}$)



$\theta_{j-a}-t$ Characteristics

