LAPT

2SA1303

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC3284)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

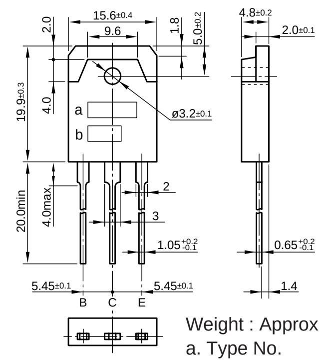
Symbol	2SA1303	Unit
V_{CBO}	–150	V
V_{CEO}	–150	V
V_{EBO}	–5	V
I_C	–14	A
I_B	–3	A
P_C	125(Tc=25°C)	W
Tj	150	°C
Tstg	–55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SA1303	Unit
I_{CBO}	V_{CB}=–150V	–100max	µA
I_{EBO}	V_{EB}=–5V	–100max	µA
$V_{(BR)CEO}$	I_C=–25mA	–150min	V
h_{FE}	V_{CE}=–4V, I_C=–5A	50min	
$V_{CE(sat)}$	I_C=–5A, I_B=–0.5A	–2.0max	V
f_T	V_{CE}=–12V, I_E=2A	50typ	MHz
C_{OB}	V_{CB}=–10V, f=1MHz	400typ	pF

∗h_{FE} Rank O(50 to 100), P(70 to 140), Y(90 to 180)

External Dimensions MT-100(TO3P)

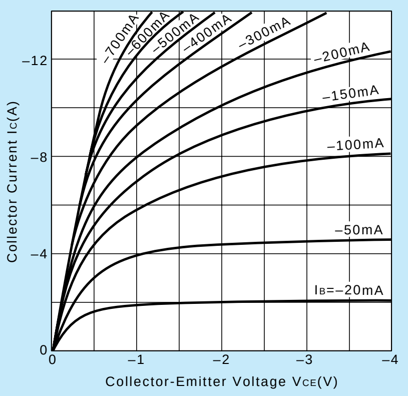


Weight : Approx 6.0g
a. Type No.
b. Lot No.

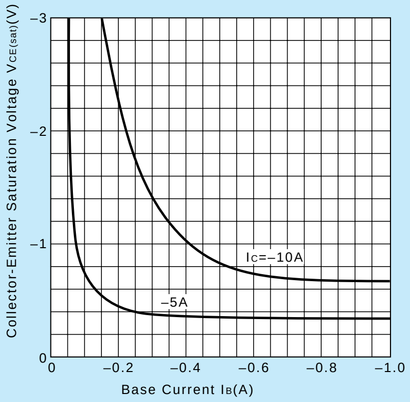
Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (mA)	I_{B2} (mA)	ton (µs)	tstg (µs)	tf (µs)
–60	12	–5	–10	5	–500	500	0.25typ	0.85typ	0.2typ

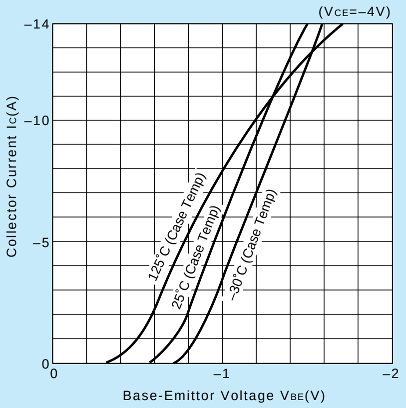
I_C–V_{CE} Characteristics (Typical)



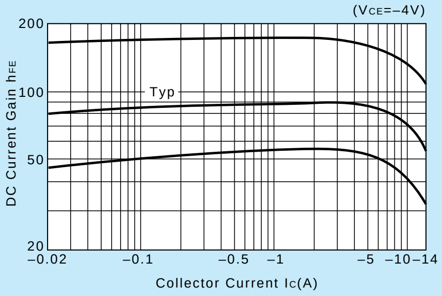
$V_{CE(sat)}$–I_B Characteristics (Typical)



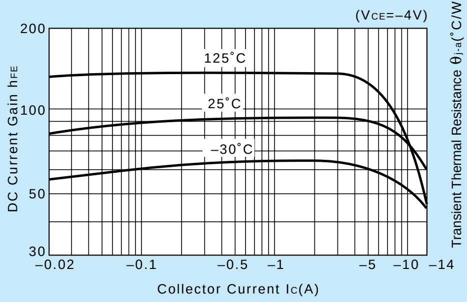
I_C–V_{BE} Temperature Characteristics (Typical)



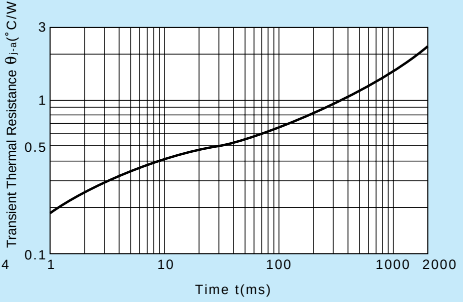
h_{FE}–I_C Characteristics (Typical)



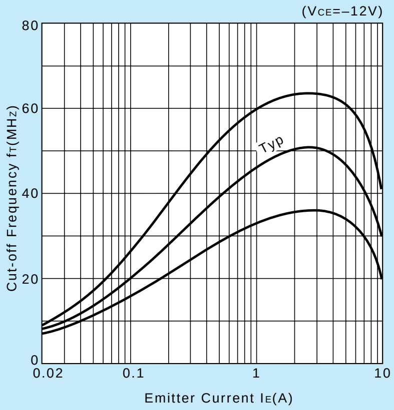
h_{FE}–I_C Temperature Characteristics (Typical)



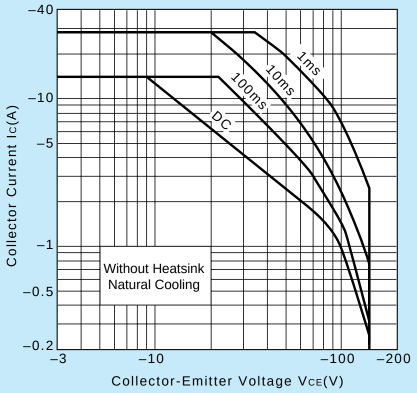
θ_{j-a}–t Characteristics



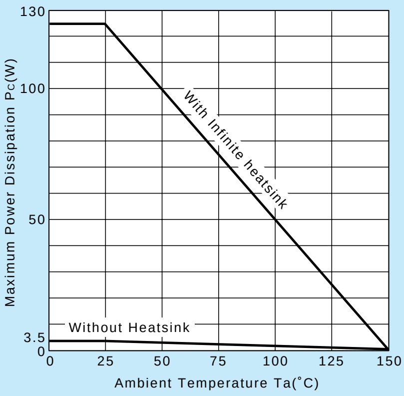
f_T–I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C–Ta Derating



LAPT

2SC3284

Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1303)

Application : Audio and General Purpose

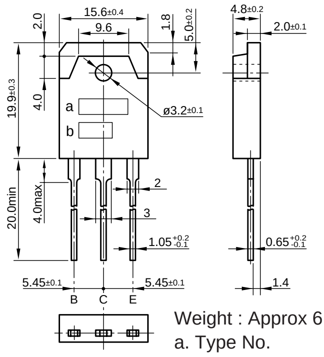
Absolute maximum ratings (Ta=25°C)

Symbol	2SC3284	Unit
V_{CBO}	150	V
V_{CEO}	150	V
V_{EBO}	5	V
I_C	14	A
I_B	3	A
P_C	125(Tc=25°C)	W
Tj	150	°C
Tstg	–55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC3284	Unit
I_{CBO}	V_{CB}=150V	100max	μA
I_{EBO}	V_{EB}=5V	100max	μA
$V_{(BR)CEO}$	I_C=25mA	150min	V
h_{FE}	V_{CE}=4V, I_C=5A	50min*	
$V_{CE(sat)}$	I_C=5A, I_B=0.5A	2.0max	V
f_T	V_{CE}=12V, I_E=–2A	60typ	MHz
C_{OB}	V_{CB}=10V, f=1MHz	200typ	pF

External Dimensions MT-100(TO3P)

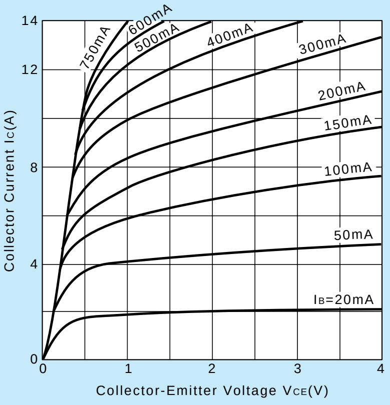


Weight : Approx 6.0g
a. Type No.
b. Lot No.

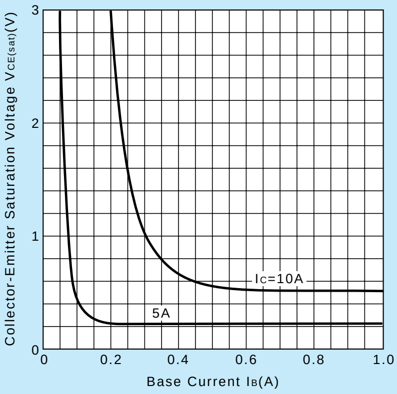
Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)	ton (μs)	tstg (μs)	tf (μs)
60	12	5	10	–5	0.5	–0.5	0.2typ	1.5typ	0.35typ

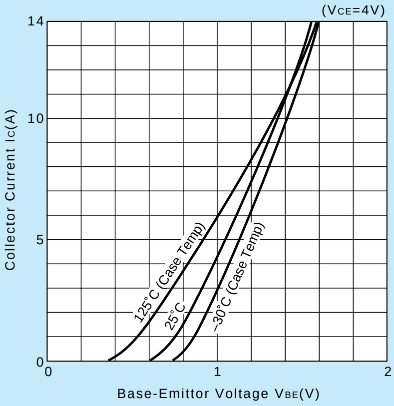
I_C−V_{CE} Characteristics (Typical)



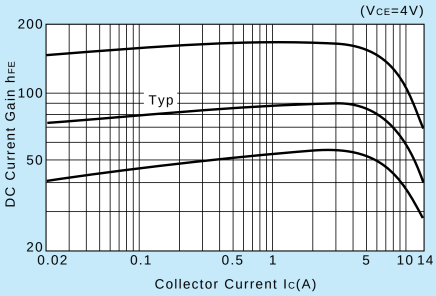
$V_{CE(sat)}$−I_B Characteristics (Typical)



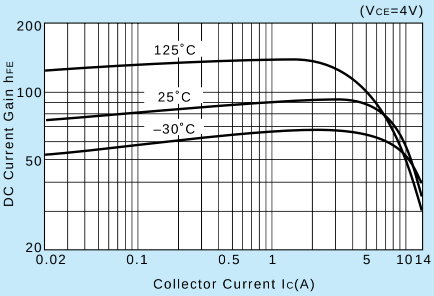
I_C−V_{BE} Temperature Characteristics (Typical)



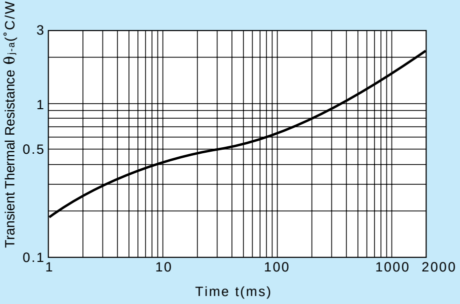
h_{FE}−I_C Characteristics (Typical)



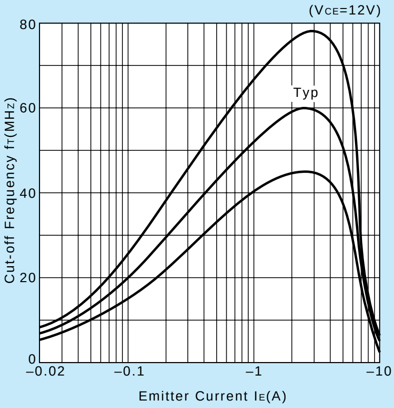
h_{FE}−I_C Temperature Characteristics (Typical)



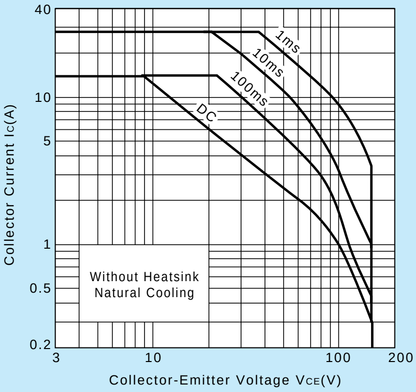
$\theta_{j\text{-}a}$−t Characteristics



f_T−I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C−Ta Derating