

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: 2SC3856

Manufacturer: Sanken Electric USA Inc.

Package: TO-3P-3, SC-65-3

Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/sanken-electric-usa-inc/2sc3856.html>

Request a Quote:

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Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

2SC3856

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1492)

Application : Audio and General Purpose

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

Symbol	Ratings	Unit
V_{CB0}	200	V
V_{CE0}	180	V
V_{EB0}	6	V
I_C	15	A
I_B	4	A
P_C	130($T_C=25^\circ\text{C}$)	W
T_J	150	$^\circ\text{C}$
T_{stg}	-55 to +150	$^\circ\text{C}$

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

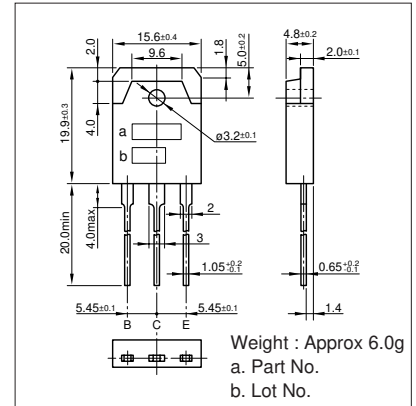
Symbol	Conditions	Ratings	Unit
I_{CBO}	$V_{CB}=200\text{V}$	100max	μA
I_{EBO}	$V_{EB}=6\text{V}$	100max	μA
$V_{(BR)CEO}$	$I_C=50\text{mA}$	180min	V
h_{FE}	$V_{CE}=4\text{V}$, $I_C=3\text{A}$	50min*	
$V_{CE(sat)}$	$I_C=5\text{A}$, $I_B=0.5\text{A}$	2.0max	V
f_r	$V_{CE}=12\text{V}$, $I_E=-0.5\text{A}$	20typ	MHz
COB	$V_{CB}=10\text{V}$, $f=1\text{MHz}$	300typ	pF

* h_{FE} Rank $\bar{O}$ (50 to 100), P(70 to 140), Y(90 to 180)

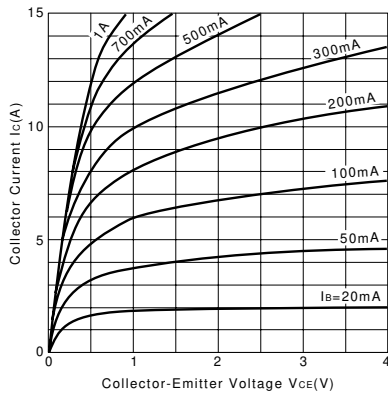
Typical Switching Characteristics (Common Emitter)

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)
40	4	10	10	-5	1	-1	0.5typ	1.8typ	0.6typ

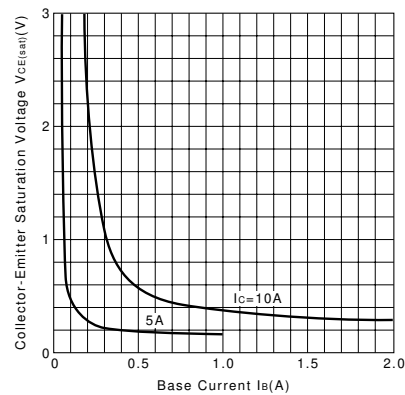
External Dimensions MT-100(TO3P)



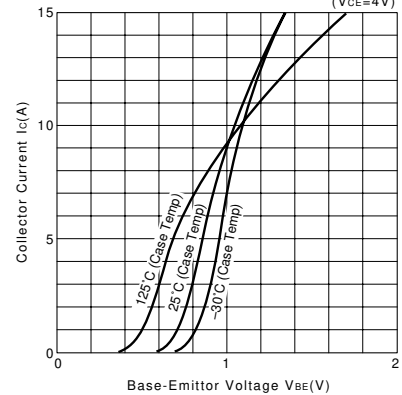
I_C-V_{CE} Characteristics (Typical)



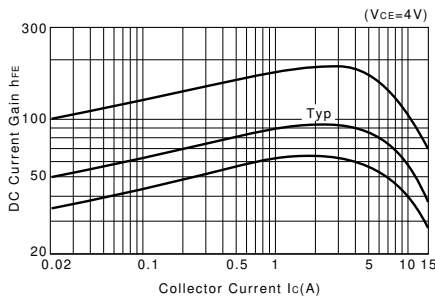
$V_{CE(sat)}-I_B$ Characteristics (Typical)



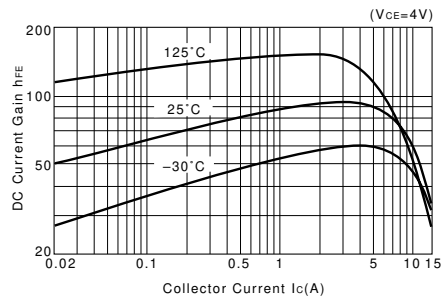
I_C-V_{BE} Temperature Characteristics (Typical)



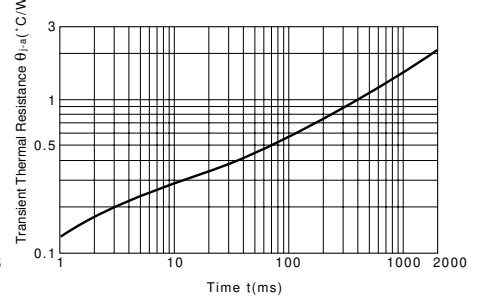
$h_{FE}-I_C$ Characteristics (Typical)



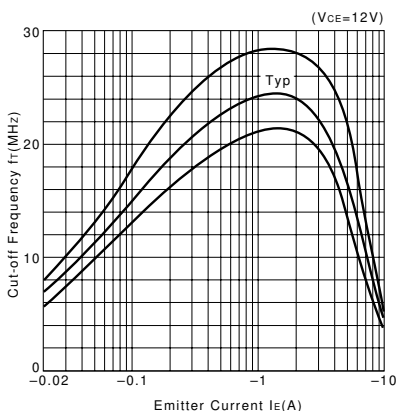
$h_{FE}-I_C$ Temperature Characteristics (Typical)



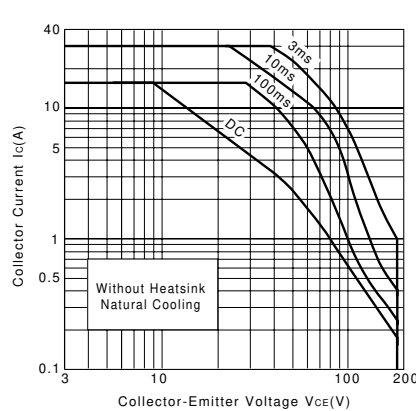
$\theta_{JA}-t$ Characteristics



f_r-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C-T_a Derating

