Ordering number:EN3235

NPN Epitaxial Planar Silicon Transistor

2SC4482

High-Current Switching Applications

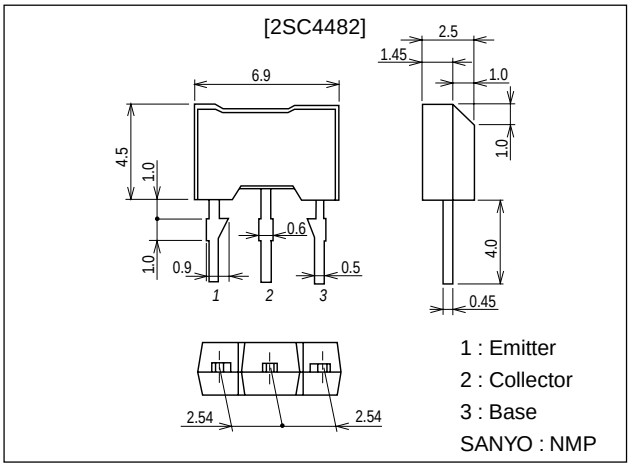
Features

- Low saturation voltage.
- Large current capacity.
- Fast switching speed.

Package Dimensions

unit:mm

2064A



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		60	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		5	A
Collector Current (Pulse)	I_{CP}		8	A
Collector Dissipation	P_C		1	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=50V, I_E=0			100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			100	nA
DC Current Gain	$h_{FE}1$	V_{CE}=2V, I_C=500mA	140*		560*	
	$h_{FE}2$	V_{CE}=2V, I_C=3A	95			
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=50mA		150		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		45		pF

* : The 2SC4482 is classified by 500mA h_{FE} as follows :

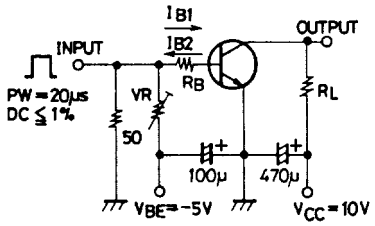
140	S	280	200	T	400	280	U	560

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

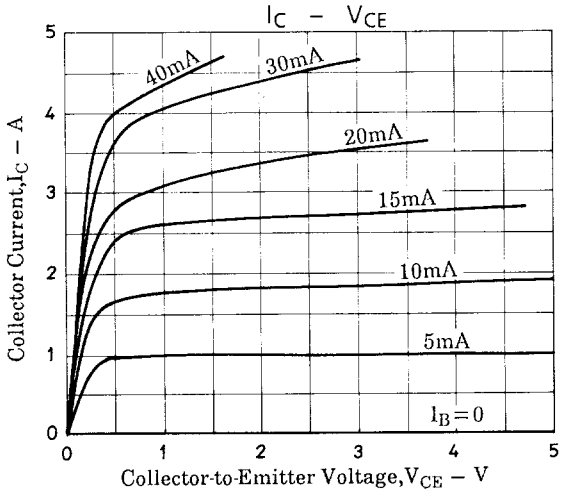
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3A, I_B=60mA		220	500	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=3A, I_B=60mA			1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10μA, I_E=0	60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	6			V
Turn-ON Time	t_{on}	See specified test circuit.		30		μs
Storage Time	t_{stg}	See specified test circuit.		300		μs
Fall Time	t_f	See specified test circuit.		40		μs

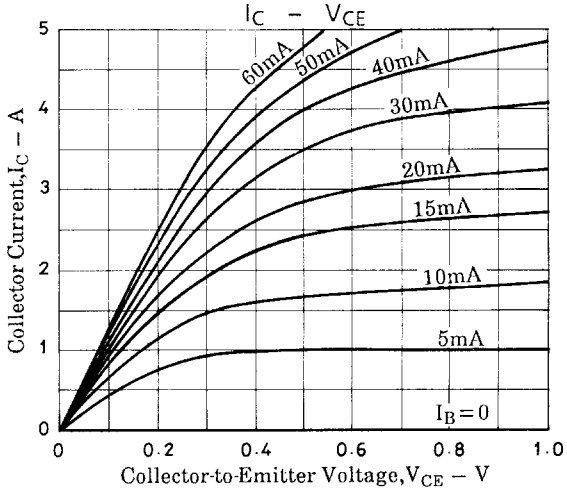
Switching Time Test Circuit

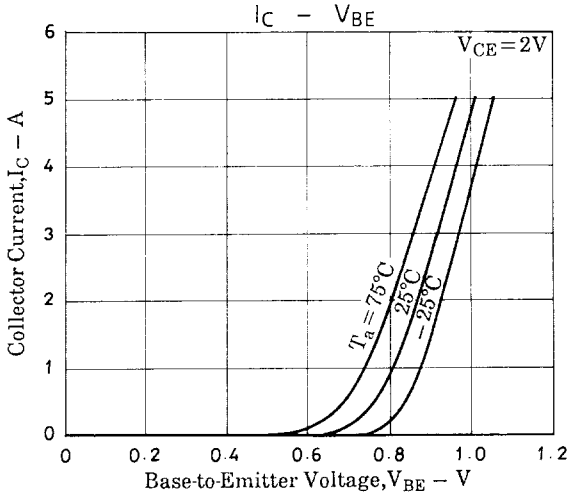


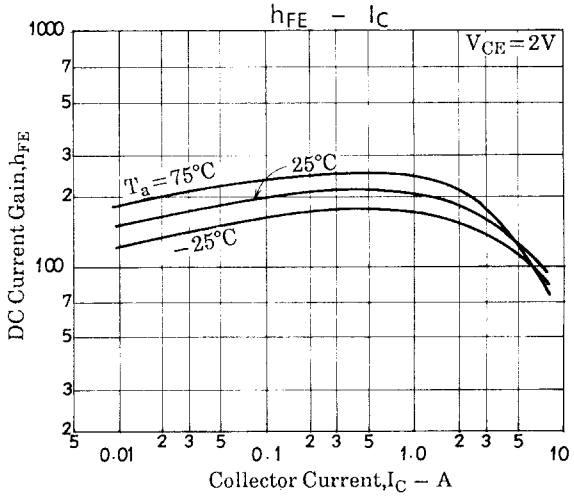
$10I_{B1} = -10I_{B2} = I_C = 2A$

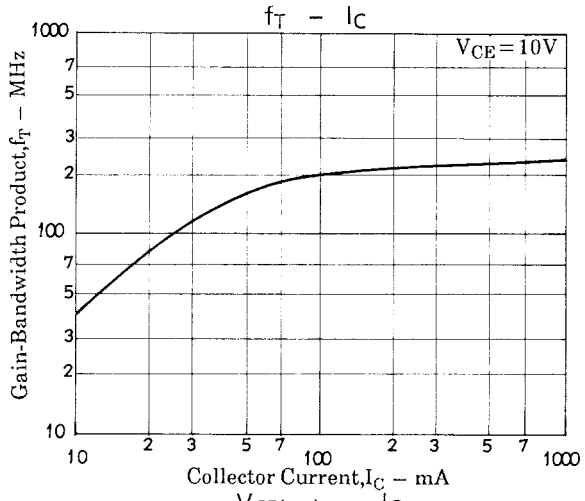
Unit (resistance : Ω, capacitance : F)

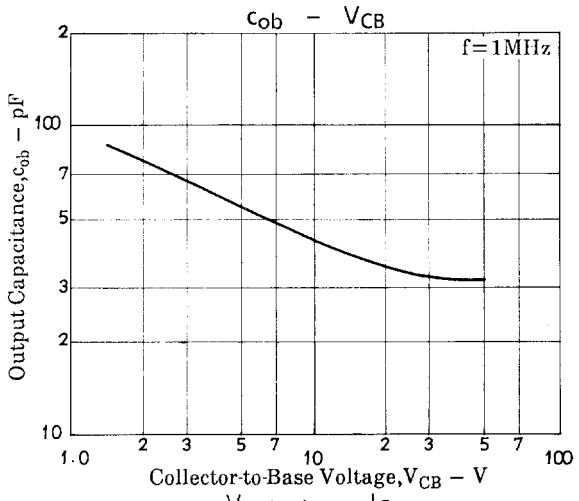


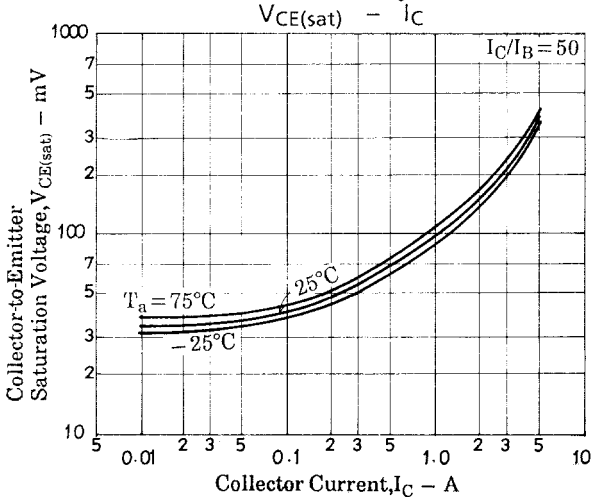


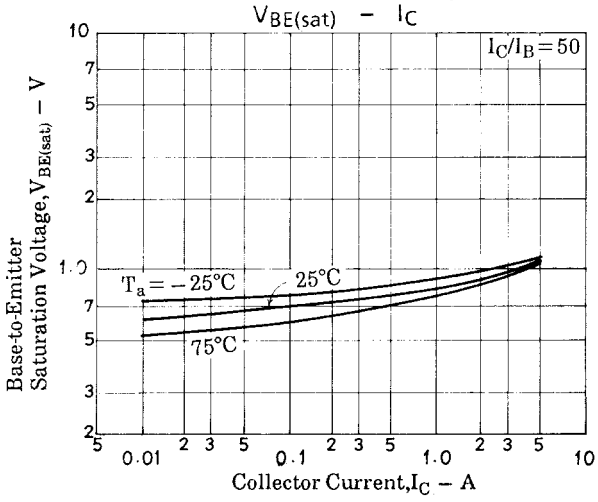


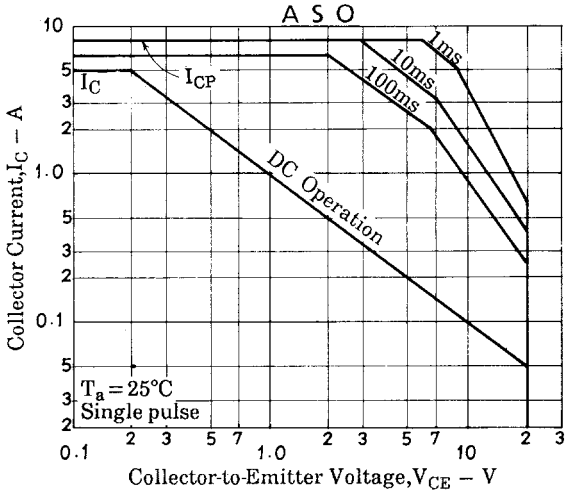


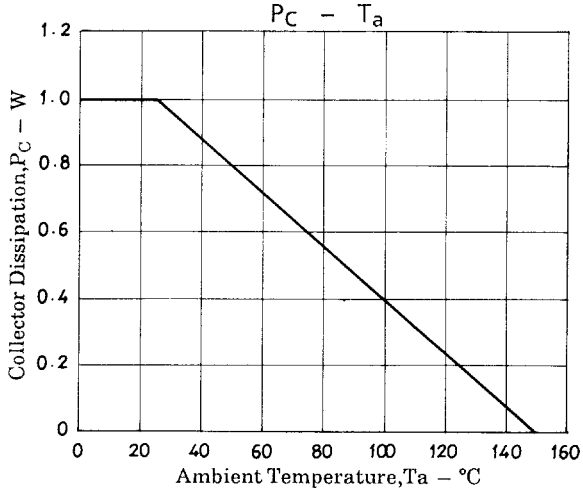

fT – IC
VCE=10V
Gain-Bandwidth Product,fT – MHz
Collector Current,IC – mA


cob – VCB
f=1MHz
Output Capacitance,cob – pF
Collector-to-Base Voltage,VCB – V


VCE(sat) – IC
IC/IB=50
Collector-to-Emitter Saturation Voltage,VCE(sat) – mV
Ta=75°C
25°C
–25°C
Collector Current,IC – A


VBE(sat) – IC
IC/IB=50
Base-to-Emitter Saturation Voltage,VBE(sat) – V
Ta=–25°C
25°C
75°C
Collector Current,IC – A


A S O
Collector Current,IC – A
IC
ICP
1ms
10ms
100ms
DC Operation
Ta=25°C
Single pulse
Collector-to-Emitter Voltage,VCE – V


PC – Ta
Collector Dissipation,PC – W
Ambient Temperature,Ta – °C