Ordering number:EN2487A

NPN Triple Diffused Planar Type Silicon Transistor

2SC3466

Switching Regulator Applications

Features

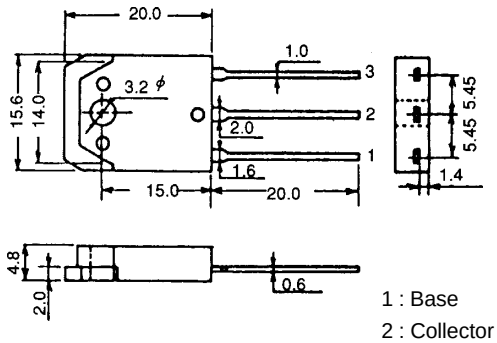
- High breakdown voltage and high reliability.
- Fast switching speed.
- Wide ASO.

Package Dimensions

unit:mm

2022A

[2SC3466]



1 : Base
2 : Collector
3 : Emitter
SANYO : TO-3PB

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1200	V
Collector-to-Emitter Voltage	V_{CEO}		650	V
Emitter-to-Base Voltage	V_{EBO}		7	V
Collector Current	I_C		8	A
Collector Current (Pulse)	I_{CP}	PW≤300μs, Duty Cycle≤10%	20	A
Base Current	I_B		3	A
Collector Dissipation	P_C	Tc=25˚C	120	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}=650V, I_E=0			100	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			100	μA
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1A	10*		40*	
	$h_{FE}2$	V_{CE}=5V, I_C=4A	6			
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=1A		5		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		120		pF

* : The 2SC3466 is classified by 1A h_{FE} as follows :

10	K	20	15	L	30	20	M	40

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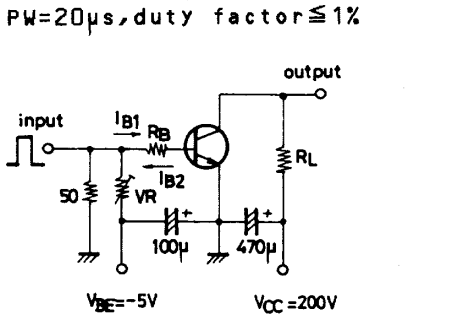
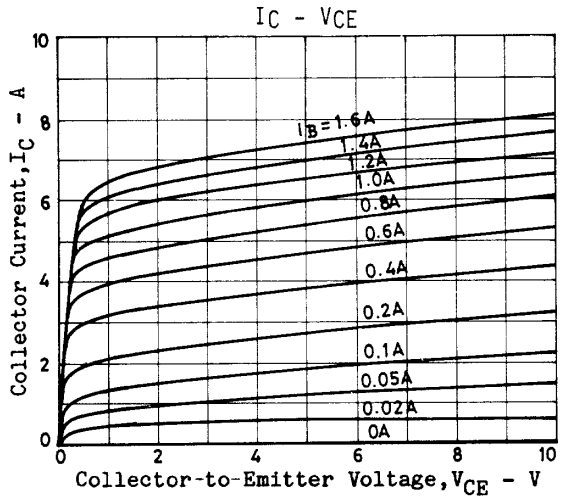
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

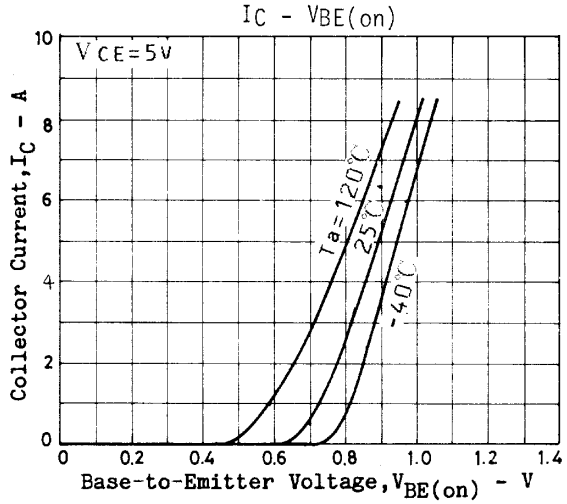
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=4A, I_B=0.8A			3.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=4A, I_B=0.8A			1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	1200			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=5mA, R_{BE}=∞	650			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=1mA, I_C=0	7			V
Turn-ON Time	t_{on}	V_{CC}=200V, $5I_{B1}$=–$2.5I_{B2}$=I_C=4A, R_L=50Ω			1.0	μs
Storage Time	t_{stg}	V_{CC}=200V, $5I_{B1}$=–$2.5I_{B2}$=I_C=4A, R_L=50Ω			4.0	μs
Fall Time	t_f	V_{CC}=200V, $5I_{B1}$=–$2.5I_{B2}$=I_C=4A, R_L=50Ω			0.7	μs

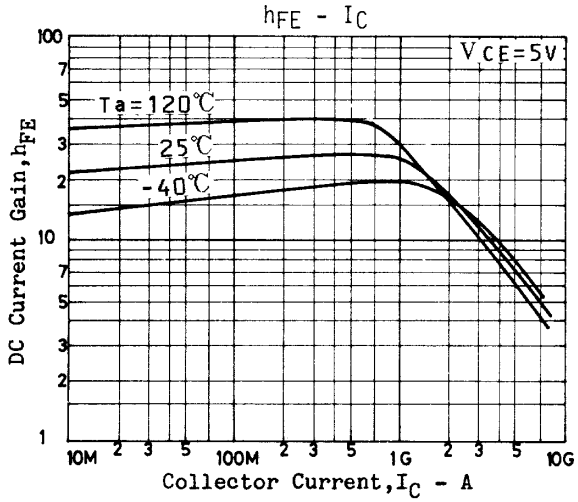
Switching Time Test Circuit

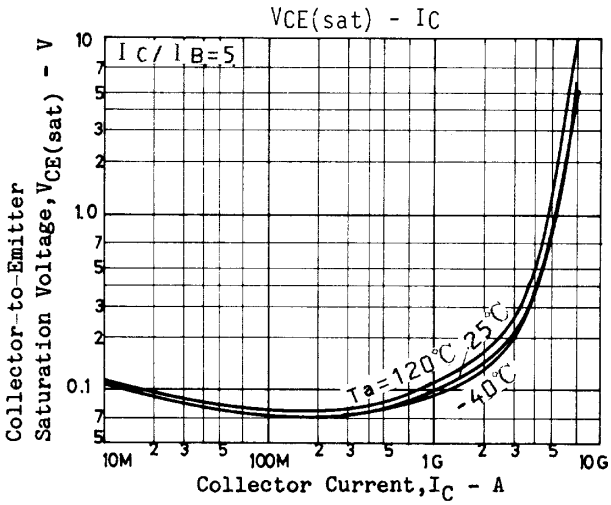


Unit (resistance : Ω, capacitance : F)

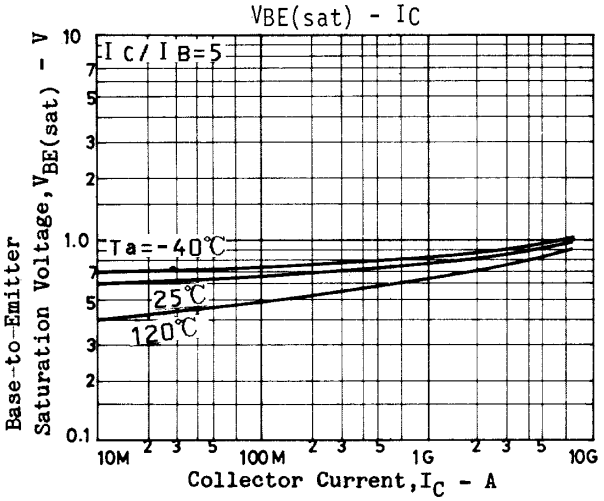




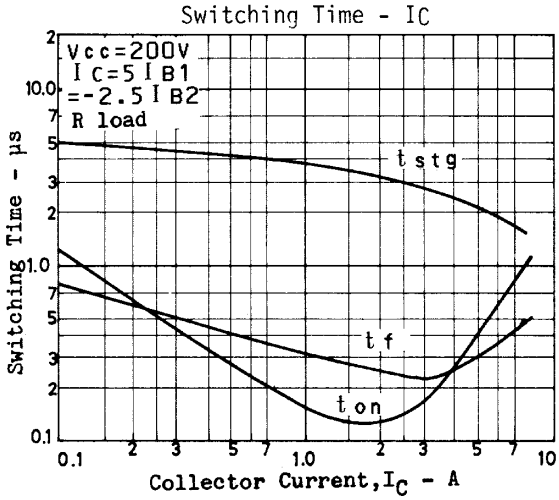




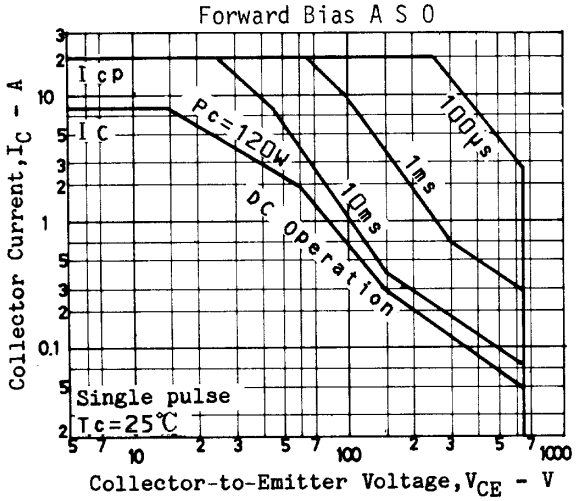
VBE(sat) - IC



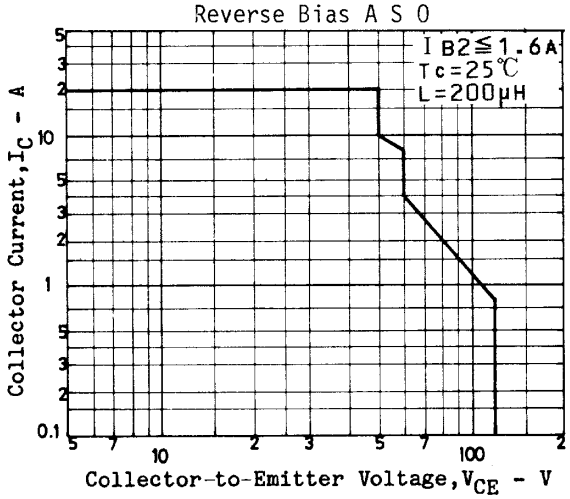
Switching Time - IC



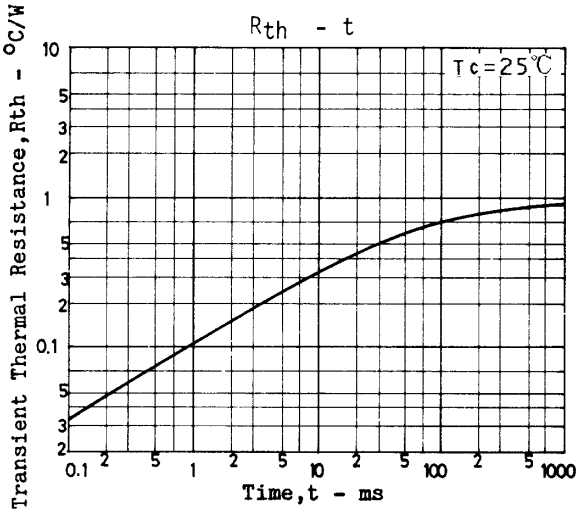
Forward Bias A S O



Reverse Bias A S O



Rth - t



PC - Tc