



2SC3466

Switching Regulator Applications

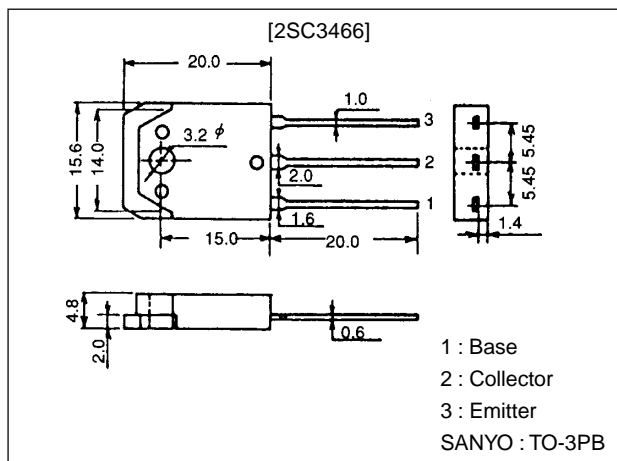
Features

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

Package Dimensions

unit:mm

2022A



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}	$PW \leq 300\mu s, Duty\ Cycle \leq 10\%$	20	A
Base Current	I_B		3	A
Collector Dissipation	P_C	$T_c = 25^\circ C$	120	W
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

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_{FE1}	$V_{CE} = 5V, I_C = 1A$	10*		40*	
	h_{FE2}	$V_{CE} = 5V, I_C = 4A$	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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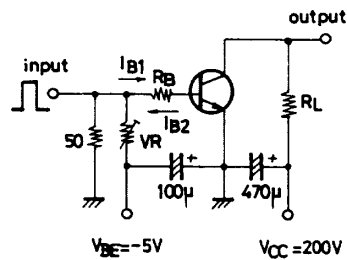
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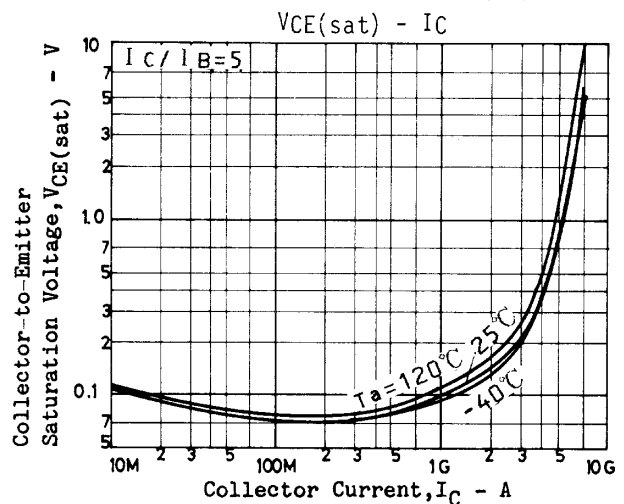
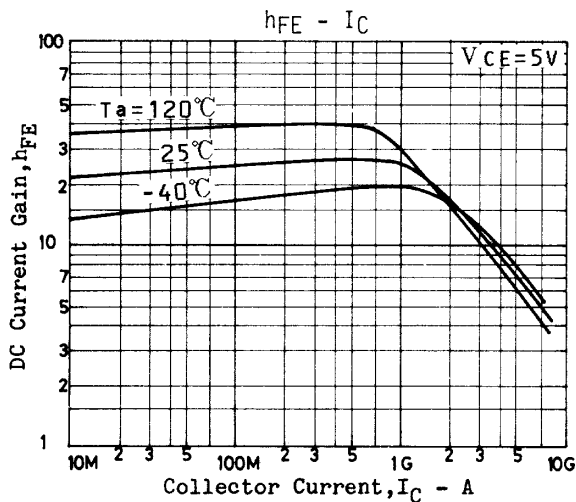
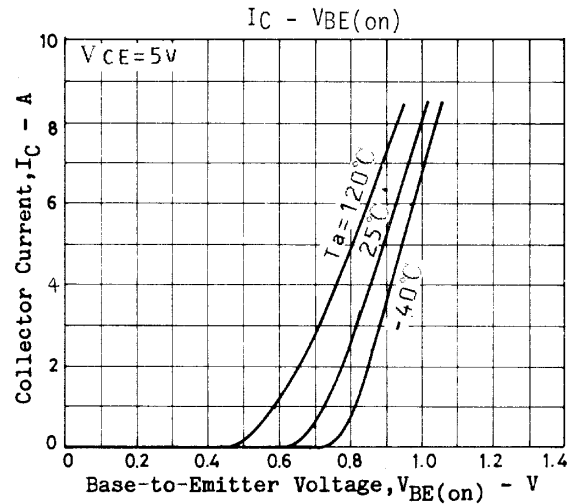
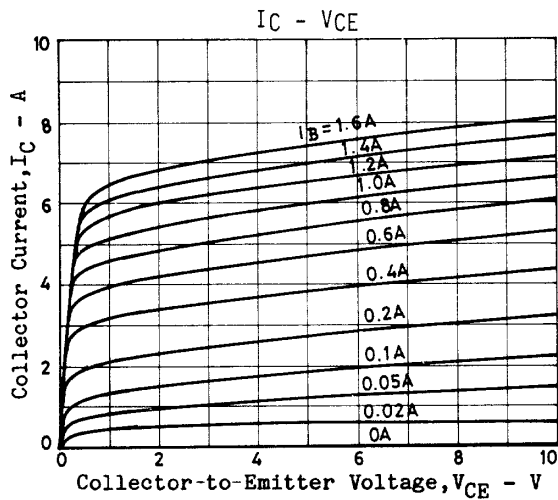
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.8A$			3.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4A, I_B=0.8A$			1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	1200			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=5mA, R_{BE}=\infty$	650			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	7			V
Turn-ON Time	t_{on}	$V_{CC}=200V, 5I_{B1}=-2.5I_{B2}=I_C=4A, R_L=50\Omega$			1.0	μs
Storage Time	t_{stg}	$V_{CC}=200V, 5I_{B1}=-2.5I_{B2}=I_C=4A, R_L=50\Omega$			4.0	μs
Fall Time	t_f	$V_{CC}=200V, 5I_{B1}=-2.5I_{B2}=I_C=4A, R_L=50\Omega$			0.7	μs

Switching Time Test Circuit

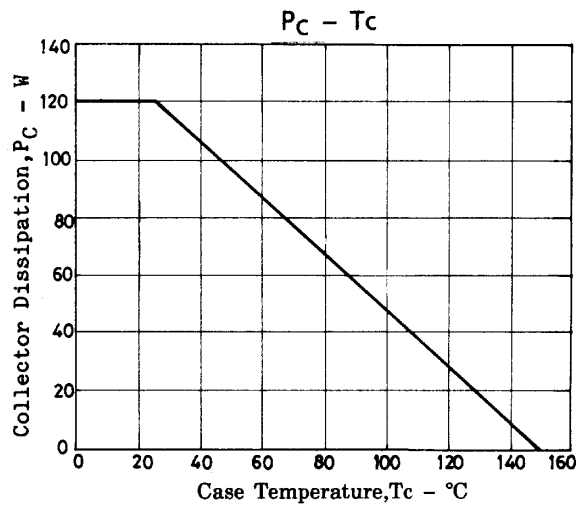
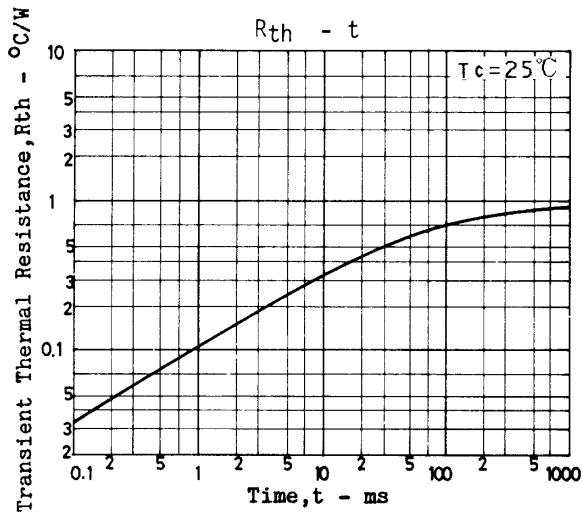
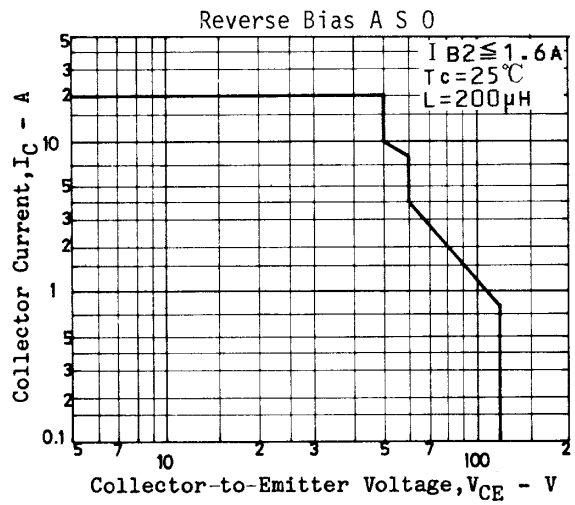
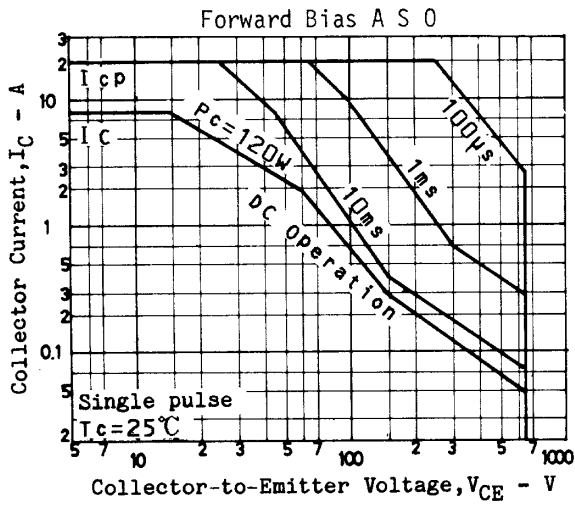
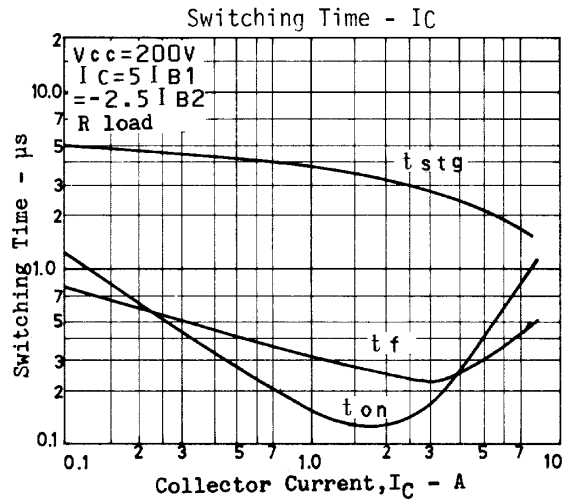
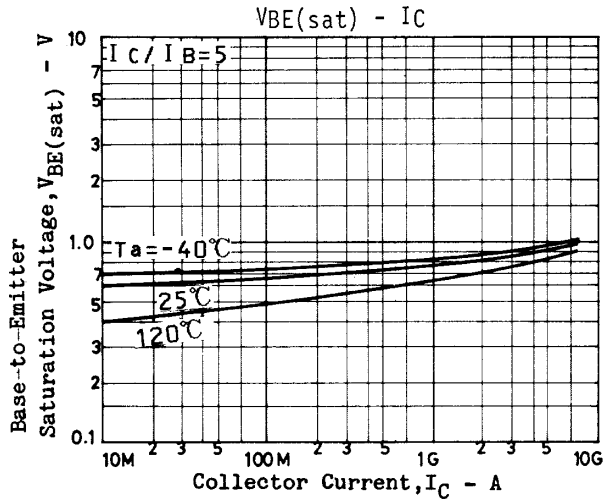
PW=20 μs , duty factor $\leq 1\%$



Unit (resistance : Ω , capacitance : F)



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