

SANYO	No. 1207A	2SC3277
NPN Triple Diffused Planar Silicon Transistor FOR SWITCHING REGULATORS		

Features

- . High breakdown voltage, high current.
- . Wide ASO.
- . Fast switching speed.

Absolute Maximum Ratings at Ta=25°C

			unit
Collector-to-Base Voltage	V _{CBO}	500	V
Collector-to-Emitter Voltage	V _{CEO}	400	V
Emitter-to-Base Voltage	V _{EBO}	7	V
Collector Current	I _C	10	A
Peak Collector	i _{cp}	20	A
		PW ≤ 300μs, Duty Cycle ≤ 10%	
Collector Dissipation	P _C	90	W
		Tc=25°C	
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} =400V, I _E =0			10	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =5V, I _C =0			10	μA
DC Current Gain	h _{FE} (1)	V _{CE} =5V, I _C =1.2A	15*		50*	
	h _{FE} (2)	V _{CE} =5V, I _C =6A	8			
Gain-Bandwidth Product	f _T	V _{CE} =10V, I _C =1.2A		20		MHz
Output Capacitance	c _{ob}	V _{CB} =10V, f=1MHz		120		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C =6A, I _B =1.2A			1.0	V
B-E Saturation Voltage	V _{BE(sat)}	I _C =6A, I _B =1.2A			1.5	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	500			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C =5mA, R _{BE} =∞	400			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	7			V
C-E Sustain Voltage	V _{CEO(sus)}	I _C =10A, I _B =2A, L=50μH	400			V

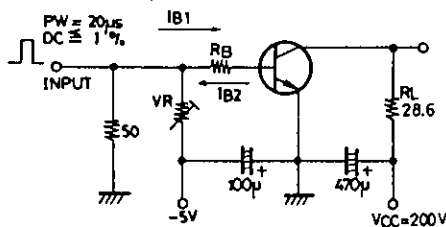
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*: The h_{FE}(1) of the 2SC3277 is classified as follows. When specifying the h_{FE}(1) rank, specify two ranks or more in principle.

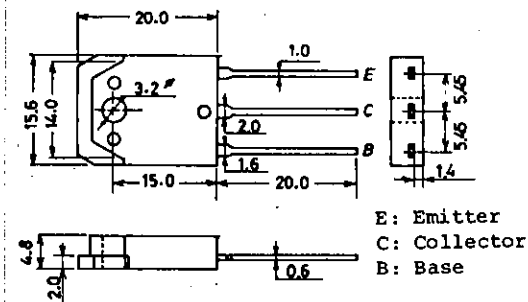
15 L	30	20 M	40	30 N	50
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Package Dimensions 2022
(unit:mm)

Switching Time Test Circuit



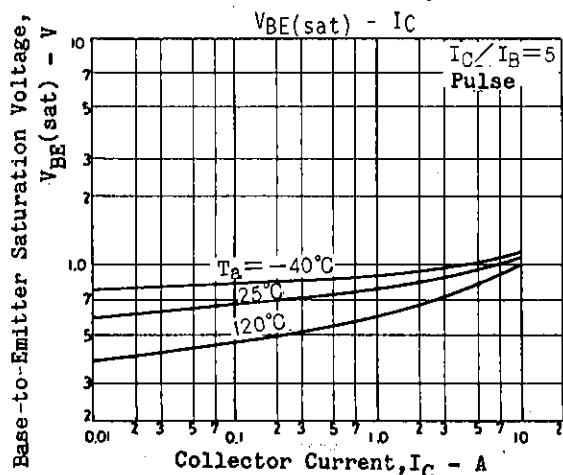
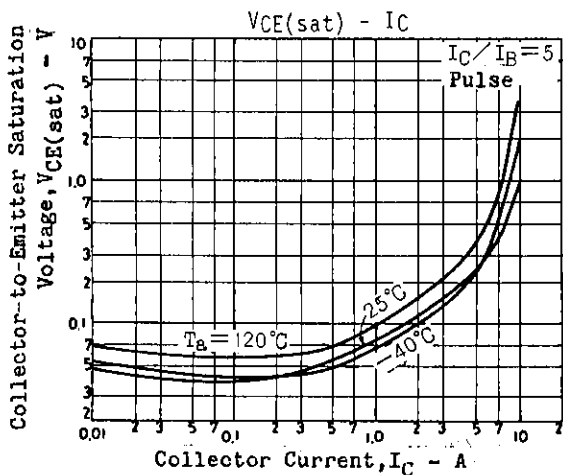
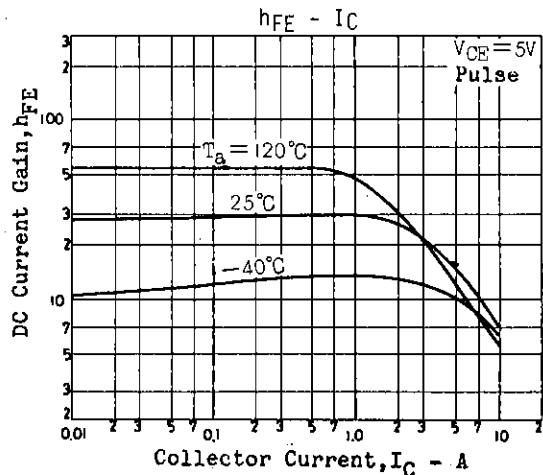
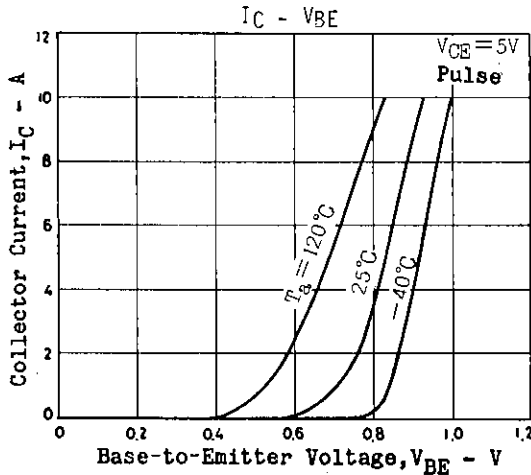
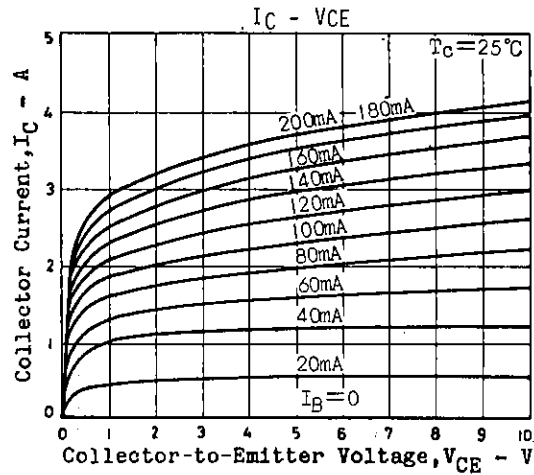
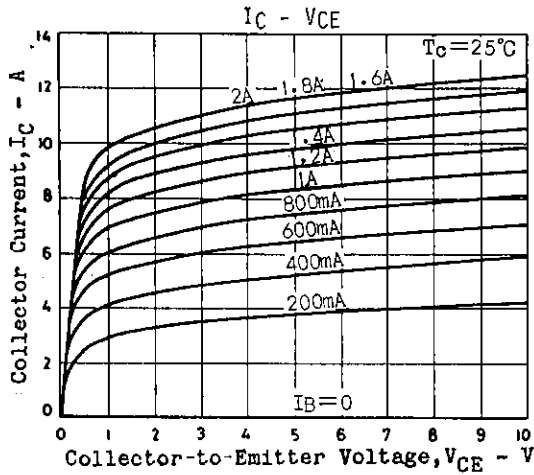
Unit (Resistance : Ω, Capacitance : F)

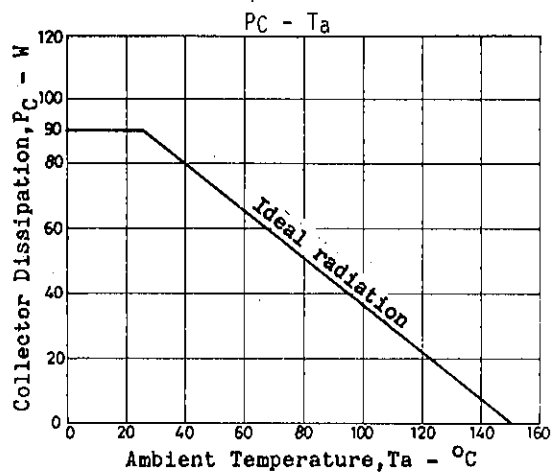
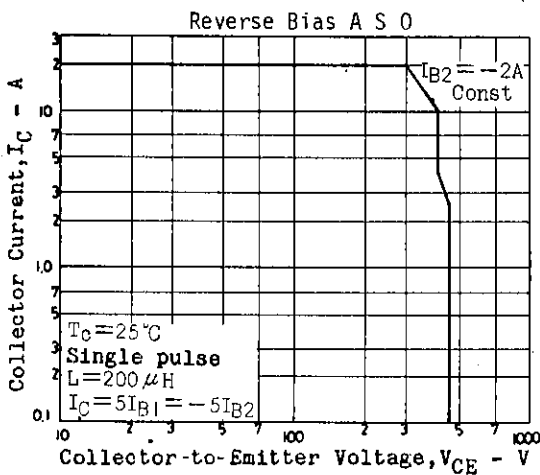
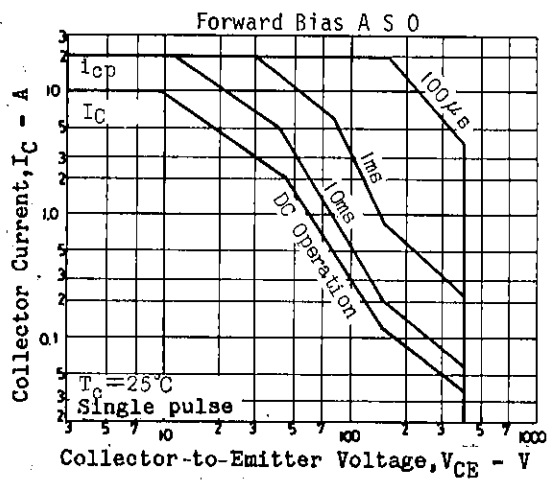
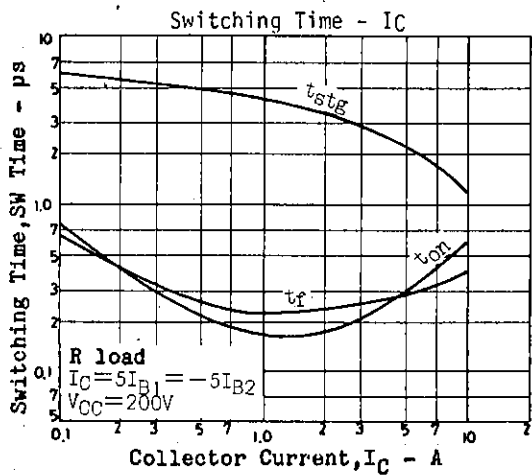


E: Emitter
C: Collector
B: Base

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			min	typ	max	unit
C-E Sustain Voltage	$V_{CEX(sus)}$ (1)	$I_C=10A, I_{B1}=2A, L=200\mu H,$ $I_{B2}=-2A, \text{clamped}$	400			V
C-E Sustain Voltage	$V_{CEX(sus)}$ (2)	$I_C=2.5A, I_{B1}=0.5A, L=200\mu H,$ $I_{B2}=-0.5A, \text{clamped}$	450			V
Turn-ON Time	t_{on}	$I_C=7A, I_{B1}=1.4A, I_{B2}=-1.4A,$ $R_L=28.6ohms, V_{CC}=200V$			1.0	μs
Storage Time	t_{stg}	" "			2.5	μs
Fall Time	t_f	" "			1.0	μs





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