Ordering number: EN1252C

SANYO

No.1252C

2SC3184

NPN Triple Diffused Planar Silicon Transistor

Switching Regulator Applications

Features

- High breakdown voltage ($V_{CBO} \geqq 900V$).
- Fast switching speed.
- Wide ASO.

Absolute Maximum Ratings at Ta = 25°C

				unit
Collector-to-Base Voltage	V_{CBO}		900	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		7	V
Collector Current	I_C		0.5	A
Collector Current (Pulse)	I_{CP}	PW≦300μs, duty cycle≦10%	2	A
Collector Dissipation	P_C	Tc = 25°C	30	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

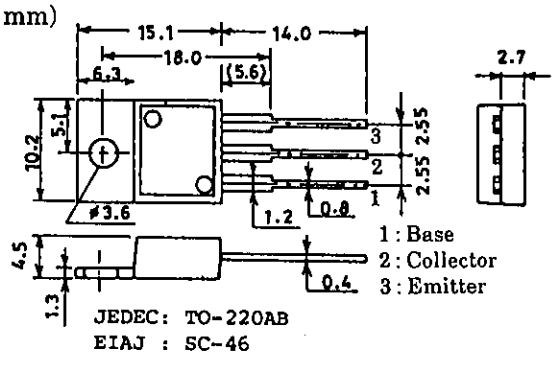
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 800V, 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 = 60mA	10※		40※	
	$h_{FE}(2)$	V_{CE} = 5V, I_C = 300mA	8			
C-E Saturation Voltage	$V_{CE(sat)}$	I_C = 300mA, I_B = 60mA			2	V
Gain-Bandwidth Product	f_T	V_{CE} = 10V, I_C = 60mA		15		MHz
Output Capacitance	Cob	V_{CB} = 10V, f = 1MHz		20		pF
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C = 1mA, I_E = 0	900			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C = 1mA, R_{BE} = ∞	800			V
C-E Sustain Time	$V_{CEO(sus)}$	I_C = 0.5A, I_{B1} = 0.1A, L = 5mH	800			V
	$V_{CEX(sus)}$	I_C = 0.5A, I_{B1} = 0.1A, I_{B2} = −0.1A L = 5mH, clamped	900			V
Turn-ON Time	t_{on}	I_C = 400mA, I_{B1} = 80mA, I_{B2} = −160mA			1.0	μs
Storage Time	t_{stg}	I_C = 400mA, I_{B1} = 80mA, I_{B2} = −160mA			3.0	μs
Fall Time	t_f	I_C = 400mA, I_{B1} = 80mA, I_{B2} = −160mA			1.0	μs

※ : For the $h_{FE}(1)$ of the 2SC3184, specify two ranks or more in principle.

10	K	20	15	L	30
20	M	40			

Package Dimensions 2010C
(unit : mm)



Switching Time Test Circuit