No. 1284

2SA1342/2SC3396

SILICON PNP/NPN EPITAXIAL PLANAR TRANSISTOR FOR SWITCHING APPLICATIONS (WITH BIAS RESISTOR BUILT IN)

Applications
Switching circuit, inverter, interface circuit, driver

Features
- Built-in bias resistor (R_1=22kΩ, R_2=22kΩ).
- Small-sized package (CP).

( ): 2SA1342

Absolute Maximum Ratings/T_a=25°C

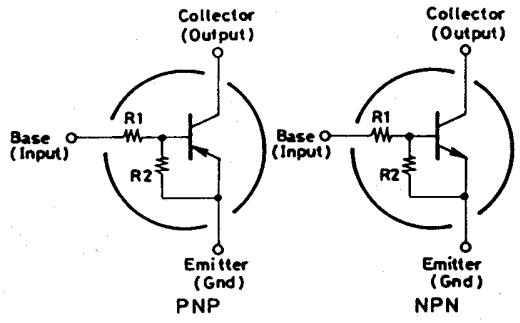
			unit
Collector to Base Voltage	V_{CBO}	(–)50	V
Collector to Emitter Voltage	V_{CEO}	(–)50	V
Emitter to Base Voltage	V_{EBO}	(–)10	V
Collector Current	I_C	(–)100	mA
Peak Collector Current	i_{cp}	(–)200	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	–55 to +150	°C

Electrical Characteristics/T_a=25°C

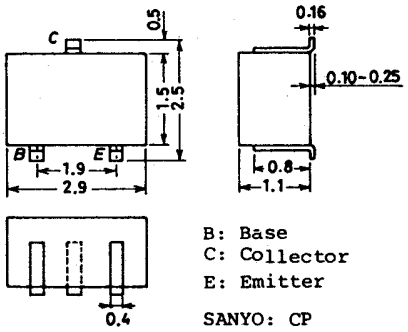
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(–)40V, I_E=0			(–)0.1	μA
Collector Cutoff Current	I_{CEO}	V_{CE}=(–)40V, I_B=0			(–)0.5	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(–)5V, I_C=0	(–)70	(–)113	(–)150	μA
DC Current Gain	h_{FE}	V_{CE}=(–)5V, I_C=(–)5mA	50			
Gain Band-width product	f_T	V_{CE}(–)10V, I_C=(–)5mA		250 (200)		MHz
Output Capacitance	c_{ob}	V_{CB}=(–)10V, f=1MHz		3.5 (5.3)		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=(–)10mA, I_B=(–)0.5mA		(–)0.1	(–)0.3	V

Marking on Device
2SA1342: CL, 2SC3396: CY

Electrical Connection



Case Outline 2018
(unit: mm)



These specifications are subject to change without notice.

TOKYO SANYO ELECTRIC CO., LTD. SEMICONDUCTOR DIVISION
15-13, 6-CHOME, SOTOKANDA, CHIYODA-KU, TOKYO 101 JAPAN

			min	typ	max	unit
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=(−)10μA, I_E=0	(−)50			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(−)100μA, R_{BE}=∞	(−)50			V
Input Off Voltage	$V_{I(off)}$	V_{CE}=(−)5V, I_C=(−)100μA	(−)0.8	(−)1.1	(−)1.5	V
Input On Voltage	$V_{I(on)}$	V_{CE}=(−)0.2V, I_C=(−)5mA	(−)1.0	(−)1.9	(−)3.0	V
Input Resistance	R_1		15	22	29	kΩ
Input Resistance Ratio	R_1/R_2		0.9	1.0	1.1	—

■ **Sample Application Circuit**