

To our customers,

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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PNP SILICON TRANSISTOR

2SA1465

DESCRIPTION The 2SA1465 is a Low $V_{CE(sat)}$ transistor which has a large Current Capability.

- FEATURES**
- Low Collector Saturation Voltage
 $V_{CE(sat)} = -0.07$ V MAX. (@ $I_C/I_B = -100$ mA/-10 mA)
 - Complementary to 2SC3740

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to +150 °C

Junction Temperature 150 °C Maximum

Maximum Power Dissipation ($T_a = 25$ °C)

Total Power Dissipation 750 mW

Maximum Voltages and Currents ($T_a = 25$ °C)

V_{CBO} Collector to Base Voltage -30 V

V_{CEO} Collector to Emitter Voltage -25 V

V_{EBO} Emitter to Base Voltage -6.0 V

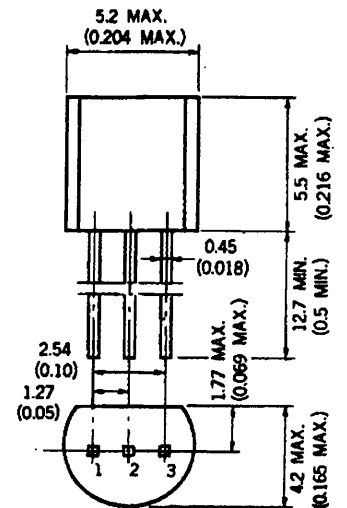
I_C Collector Current (DC) -1.0 A

I_C Collector Current (pulse)* -1.5 A

* $PW \leq 10$ ms, Duty Cycle ≤ 50 %

PACKAGE DIMENSIONS

in millimeters (inches)



1. EMITTER EIAJ : SC-43B
 2. COLLECTOR JEDEC : TO-18
 3. BASE IEC : PA33

ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}^{**}	DC Current Gain	110	200	400	—	$V_{CE} = -1.0$ V, $I_C = -100$ mA
h_{FE2}^{**}	DC Current Gain	50			—	$V_{CE} = -1.0$ V, $I_C = -1.0$ A
f_T	Gain Bandwidth Product	100	150		MHz	$V_{CE} = -1.0$ V, $I_E = 100$ mA
C_{ob}	Output Capacitance		13	25	pF	$V_{CB} = -10$ V, $I_E = 0$, $f = 1.0$ MHz
I_{CBO}	Collector Cutoff Current			-100	nA	$V_{CB} = -30$ V, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			-100	nA	$V_{EB} = -6.0$ V, $I_C = 0$
V_{BE}^{**}	Base to Emitter Voltage	-600	-650	-700	mV	$V_{CE} = -1.0$ V, $I_C = -10$ mA
$V_{CE(sat)1}^{**}$	Collector Saturation Voltage			-0.07	V	$I_C = -100$ mA, $I_B = -10$ mA
$V_{CE(sat)2}^{**}$	Collector Saturation Voltage			-0.3	V	$I_C = -500$ mA, $I_B = -20$ mA
$V_{BE(sat)}^{**}$	Base Saturation Voltage			-1.2	V	$I_C = -100$ mA, $I_C = -10$ mA

** Pulsed $PW \leq 350$ μ s, Duty Cycle ≤ 2 %

Classification of h_{FE1}

Rank	M	L	K
Range	110 to 180	135 to 270	200 to 400

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

