isc Silicon NPN Power Transistor 2SC9014

DESCRIPTION

- High total power dissipation
- High hFE and good linearity

APPLICATIONS

- Designed for Switching and amplification

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	0.1	A
P_C	Collector Power Dissipation @ T_a<50℃	0.45	W
$_J$	Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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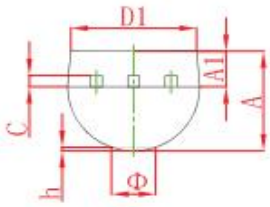
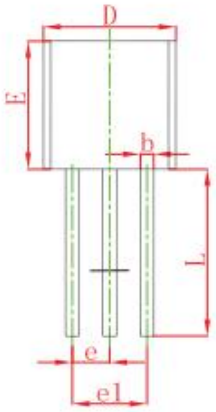
ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CBO}	Collector-base breakdown Voltage	I_C= 100uA; IE= 0	50			V
V_{EBO}	Emitter-base breakdown Voltage	IE= 100uA; I_C= 0	5			v
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 100mA; I_B= 5mA			0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 100mA; I_B= 5mA			1	V
$V_{BE(on)}$	Base-Emitter on Voltage	V_{CE} = 5V, I_C= 1mA	0.58		0.7	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 50V; I_E= 0			50	nA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			50	nA
h_{FE}	DC Current Gain	I_C=1mA ; V_{CE}= 5V	60		1000	

TO-92 Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015