TAIGITON

S9014W

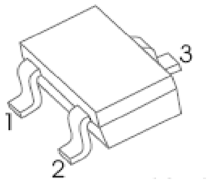
SOT-323 Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

FEATURES

- Complementary to S9015W
- Small Surface Mount Package

SOT－323



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

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	100	mA
P_C	Collector Power Dissipation	200	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	625	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=100μA, I_B=0	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=50V, I_E=0			100	nA
Collector cut-off current	I_{CEO}	V_{CE}=35V, I_B=0			1	uA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			100	nA
DC current gain	h_{FE}	V_{CE}=5V, I_C=1mA	200		1000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=5mA			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA, I_B=5mA			1	V
Base-emitter voltage	V_{BE}	V_{CE}=5V, I_C=2mA			0.7	V
Transition frequency	f_T	V_{CE}=5V,I_C=10mA , f=30MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			3.5	pF

CLASSIFICATION OF h_{FE}

RANK	**L**	**H**
RANGE	200－450	450－1000
MARKING	**J6**	