

NPN EPITAXIAL SILICON TRANSISTOR (Version C1.0)

S9014

General Purpose Application

Switching Application

◇ Collector Current $I_C=100\text{mA}$

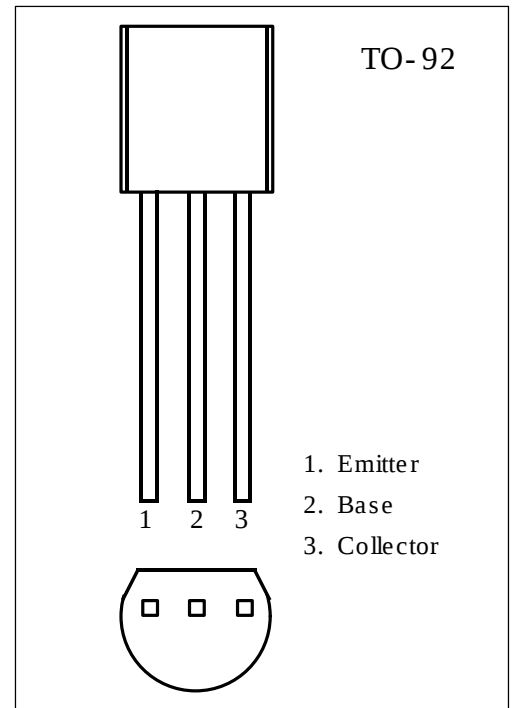
◇ Collector Power Dissipation $P_C=625\text{mW}$

◇ Complementary to S9015

ABSOLUTE MAXIMUM RATINGS

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

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	50	V
Collector-Emitter Voltage	V_{CE0}	45	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C	450	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55\sim+150$	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS

($T_a=25^\circ\text{C}$ unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CB0}	$I_C=100\mu\text{A}$	50			V
Collector-emitter breakdown voltage	BV_{CE0}	$I_C=1\text{mA}$	45			V
Emitter-base breakdown voltage	BV_{EB0}	$I_E=100\mu\text{A}$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=50\text{V}$			50	nA
DC current gain	h_{FE}	$I_C=1\text{mA}$ $V_{CE}=5\text{V}$	60		1000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$ $I_B=5\text{mA}$			0.3	V

* h_{FE} Classification: A: 60~150, B:100~300 , C:200~600 , D=400~1,000