

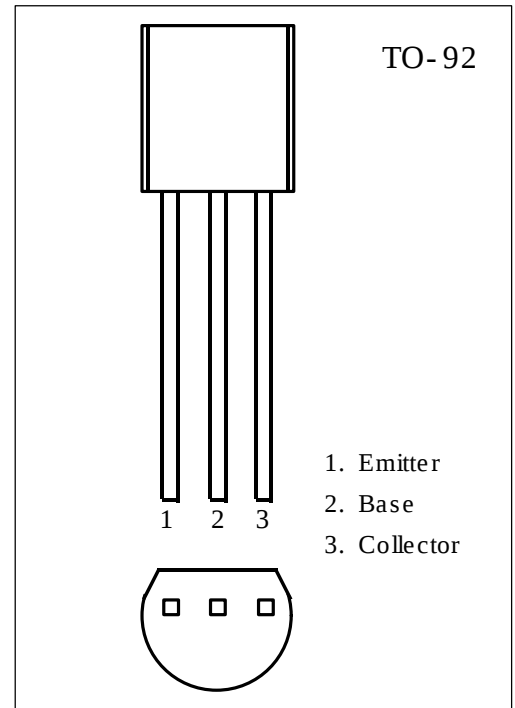
NPN EPITAXIAL SILICON TRANSISTOR
ST9013
General Purpose Application

- ◇ Collector Current $I_C=500\text{mA}$
- ◇ Collector Power Dissipation $P_C=625\text{mW}$
- ◇ Complementary to ST9012

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	VCBO	40	V
Collector-Emitter Voltage	VCEO	30	V
Emitter-Base voltage	VEBO	5	V
Collector Current	IC	0.5	A
Collector Power Dissipation	PC	625	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C


ELECTRICAL CHARACTERISTICS

(Ta=25°C unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	BVCBO	IC=100 μ A	40			V
Collector-emitter breakdown voltage	BVCEO	IC=10mA	30			V
Emitter-base breakdown voltage	BVEBO	IE=100 μ A	5			V
Collector cut-off current	ICBO	VCB=25V			100	nA
Emitter cut-off current	IEBO	VBE=3V			100	nA
DC current gain	hFE	IC=50mA VCE=1V	96	120	246	
		IC=500mA VCE=1V	40			
Collector-emitter saturation voltage	VCE(sat)	IC=500mA IB=50mA			0.5	V
Base-emitter saturation voltage	VBE(sat)	IC=500mA IB=50mA			1.2	V
Output Capacitance	Cob	VCB=10V f=100MHz			10	pF
Transition Frequency	fT	VCE=10V IC=100mA	200			MHz

* hFE Classification: F:96~135 , G:118~166 , H:144~202, I:176~246

