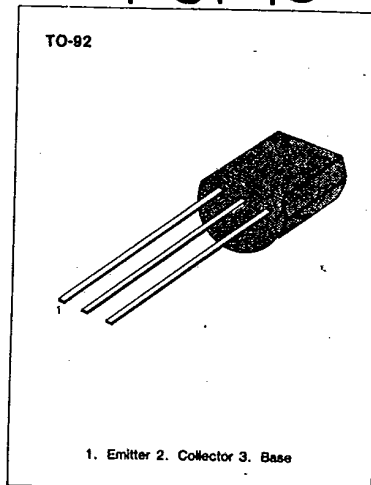


KSR2009**PNP EPITAXIAL SILICON TRANSISTOR****SWITCHING APPLICATION** (Bias Resistor Built In)

- Switching Circuit, Inverter, Interface circuit
Driver circuit
- Built in bias Resistor ($R=4.7K\Omega$)
- Complement to KSR1009

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

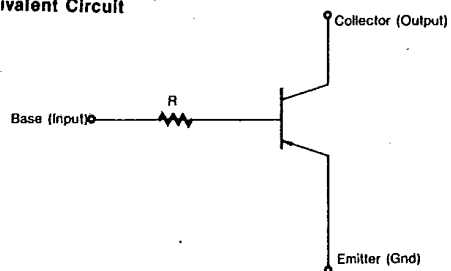
Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-40	V
Collector-Emitter Voltage	V_{CE0}	-40	V
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-100	mA
Collector Dissipation	P_C	300	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ\text{C}$



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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-100\mu\text{A}, I_E=0$	-40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}, I_B=0$	-40			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=-30\text{V}, I_E=0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	100		600	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.3	V
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0$ $f=1\text{MHz}$		5.5		pF
Current Gain-Bandwidth Product	f_T	$V_{CE}=-10\text{V}, I_C=-5\text{mA}$		200		MHz
Input Resistor	R_1		3.2	4.7	6.2	$K\Omega$

Equivalent Circuit

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PNP EPITAXIAL SILICON TRANSISTOR

T-37-13

