

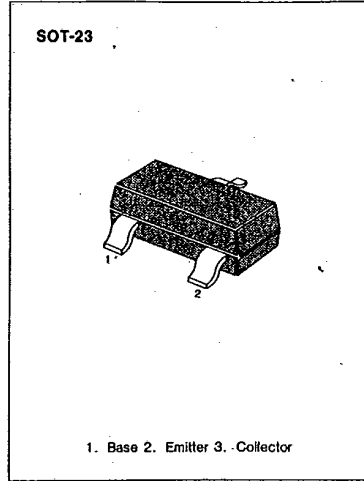
KSR2105

PNP EPITAXIAL SILICON TRANSISTOR

T-37-13

SWITCHING APPLICATION (Bias Resistor Built In)

- Switching Circuit, Inverter, Interface circuit
Driver circuit
- Built in bias Resistor ($R_1=4.7K\Omega$, $R_2=10K\Omega$)
- Complement to KSR1105



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

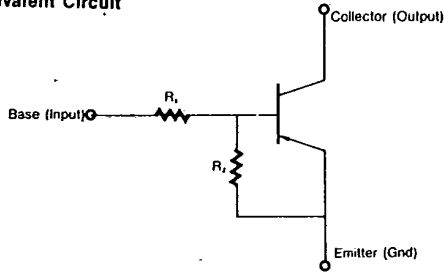
Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-10	V
Collector Current	I_C	-100	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55~150	$^\circ C$

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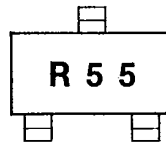
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-10\mu A, I_E=0$	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-100\mu A, I_B=0$	-50			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=-40V, I_E=0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-5V, I_C=-5mA$	30			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-10mA, I_B=-0.5mA$			-0.3	V
Current Gain-Bandwidth Product	Cob	$V_{CB}=-10V, I_E=0$ $f=1MHz$		5.5		pF
Current Gain-Bandwidth Product	f_T	$V_{CE}=-10V, I_C=-5mA$		200		MHz
Input Off Voltage	$V_i(off)$	$V_{CE}=-5V, I_C=-100\mu A$	-0.3			V
Input On Voltage	$V_i(on)$	$V_{CE}=-0.3V, I_C=-20mA$			-2.5	V
Input Resistor	R_1		3.2	4.7	6.2	$K\Omega$
Resistor Ratio	R_1/R_2		0.42	0.47	0.52	

Equivalent Circuit



Marking



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