

KSR2106

PNP EPITAXIAL SILICON TRANSISTOR

T-37-13

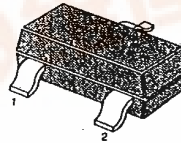
SWITCHING APPLICATION (Bias Resistor Built In)

- Switching Circuit, Inverter, Interface circuit Driver circuit
- Built in bias Resistor ($R_1=10K\Omega$, $R_2=47K\Omega$)
- Complement to KSR1106

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	$^\circ C$

SOT-23



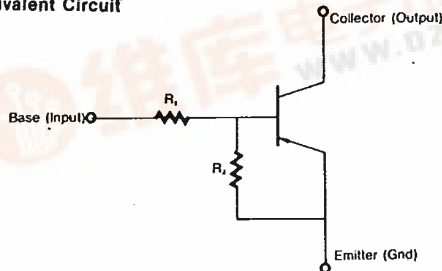
1. Base 2. Emitter 3. Collector

3

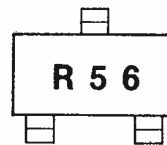
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

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}	$V_{CE} = -5V, I_C = -5mA$	68			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -0.5mA$			-0.3	V
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0$ $f = 1MHz$		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	$V_i(on)$	$V_{CE} = -0.3V, I_C = -1mA$			-1.4	V
Input Resistor	R_1		7	10	13	$K\Omega$
Resistor Ratio	R_1/R_2		0.19	0.21	0.24	

Equivalent Circuit



Marking

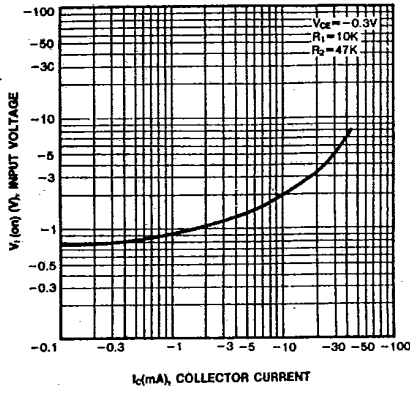


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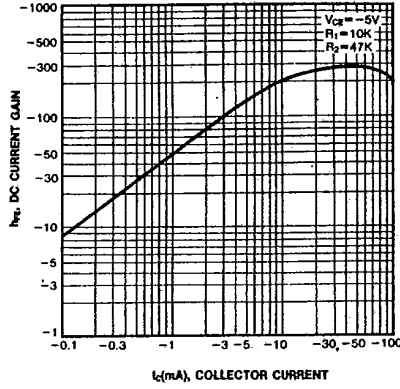
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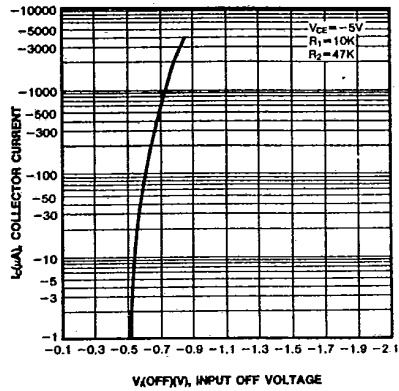
INPUT ON VOLTAGE



DC CURRENT GAIN



INPUT OFF VOLTAGE



POWER DERATING

