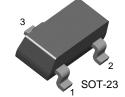


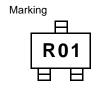
KSR1101

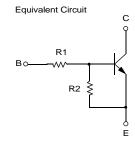
Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R₁ =4.7K Ω , R₂=4.7K Ω)
- Complement to KSR2101



1. Base 2. Emitter 3. Collector





NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	50	V
V _{EBO}	Emitter-Base Voltage	10	V
I _C	Collector Current	100	mA
P _C	Collector Power Dissipation	200	mW
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV _{CBO}	Collector-Base Breakdown Voltage	I _C =10μA, I _E =0	50			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C =100μA, I _B =0	50			V
I _{CBO}	Collector Cutoff Current	V_{CB} =40V, I_E =0			0.1	μΑ
h _{FE}	DC Current Gain	V_{CE} =5V, I_{C} =10mA	20			
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C =10mA, I _B =0.5mA			0.3	V
f _T	Current Gain Bandwidth Product	V _{CE} =10V, I _C =5mA		250		MHz
C _{ob}	Output Capacitance	V _{CB} =10V, I _E =0 f=1.0MHz		3.7		pF
V _I (off)	Input Off Voltage	V _{CE} =5V, I _C =100μA	0.5			V
V _I (on)	Input On Voltage	V _{CE} =0.3V, I _C =20mA			3	V
R ₁	Input Resistor		3.2	4.7	6.2	ΚΩ
R_1/R_2	Resistor Ratio		0.9	1	1.1	

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Typical Characteristics

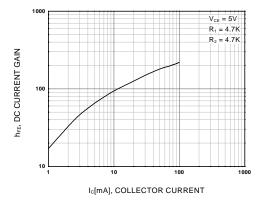


Figure 1. DC current Gain

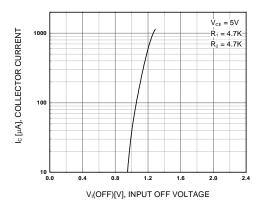


Figure 3. Input Off Voltage

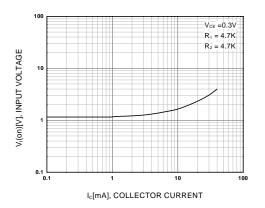


Figure 2. Input On Voltage

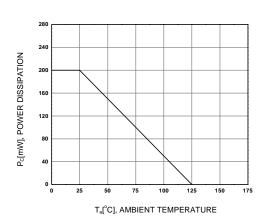
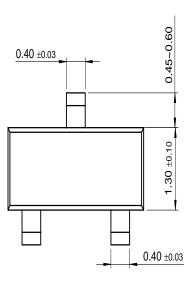


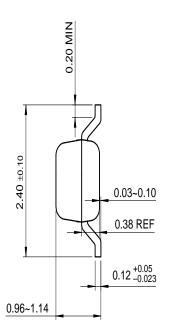
Figure 4. Power Derating

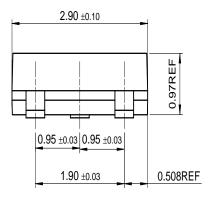
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Package Dimensions

SOT-23







Dimensions in Millimeters

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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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