

KSR1012

NPN EPITAXIAL SILICON TRANSISTOR

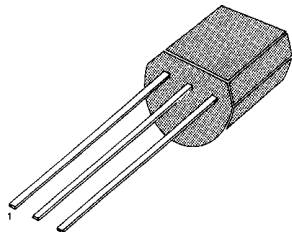
SWITCHING APPLICATION (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R=47kΩ)
- Complement to KSR2012

ABSOLUTE MAXIMUM RATINGS (T_A=25 °C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	40	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	100	mA
Collector Dissipation	P _C	300	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ 150	°C

TO-92



1. Emitter 2. Collector 3. Base

ELECTRICAL CHARACTERISTICS (T_A=25 °C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =100 μA, I _E =0	40			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _E =1mA, I _B =0	40			V
Collector Cut-off Current	I _{CBO}	V _{CB} =30V, I _E =0			0.1	μA
DC Current Gain	h _{FE}	V _{CE} =5V, I _C =1mA	100		600	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	I _C =10mA, I _B =1mA			0.3	V
Output Capacitance	C _{OB}	V _{CB} =10V, I _E =0 f=1MHz		3.7		pF
Current Gain-Bandwidth Product	f _T	V _{CE} =10V, I _C =5mA		250		MHz
Input Resistor	R		32	47	62	kΩ

Equivalent Circuit

