

SAMSUNG SEMICONDUCTOR INC

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**KSR2212**

**PNP EPITAXIAL SILICON TRANSISTOR**

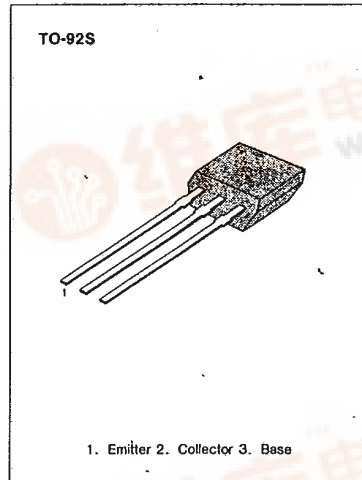
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**SWITCHING APPLICATION (Bias Resistor Built In)**

- Switching Circuit, Inverter, Interface circuit  
Driver circuit
- Built in bias Resistor (R=47KΩ)
- Complement to KSR1212

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-40	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current	I <sub>c</sub>	-100	mA
Collector Dissipation	P <sub>c</sub>	300	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 150	°C



**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	I <sub>c</sub> =-100μA, I <sub>E</sub> =0	-40			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>c</sub> =-1mA, I <sub>B</sub> =0	-40			V
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =-30V, I <sub>E</sub> =0			-0.1	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =-5V, I <sub>c</sub> =-1mA	100		600	
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-10mA, I <sub>B</sub> =-1mA			-0.3	V
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0 f=1MHz		5.5		pF
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>c</sub> =-5mA		200		MHz
Input Resistor	R		32	47	62	KΩ

**Equivalent Circuit**

