

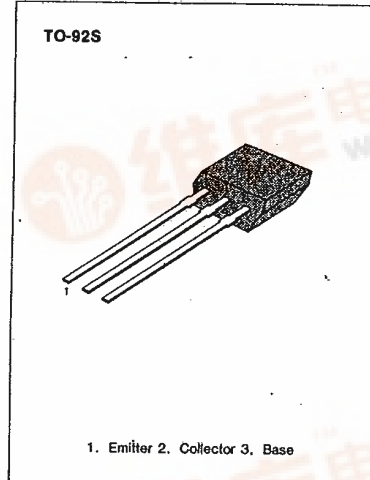
KSR1209 NPN EPITAXIAL SILICON TRANSISTOR

SWITCHING APPLICATION (Bias Resistor Built In)

- Switching Circuit, inverter, Interface circuit Driver circuit
- Built in bias Resistor (R=4.7KΩ)
- Complement to KSR2209

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CE0}	40	V
Emitter-Base Voltage	V _{EB0}	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

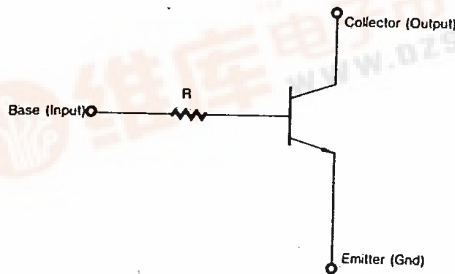


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ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV _{CE0}	I _c =100μA, I _E =0	40			V
Collector-Emitter Breakdown Voltage	BV _{CE0}	I _c =1mA, I _B =0	40			V
Collector Cutoff Current	I _{CB0}	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		3.70		pF
Current Gain-Bandwidth Product	f _T	V _{CE} =10V, I _c =5mA		250		MHz
Input Resistor	R		3.2	4.7	6.2	KΩ

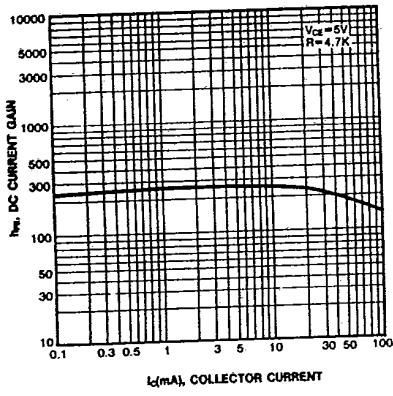
Equivalent Circuit



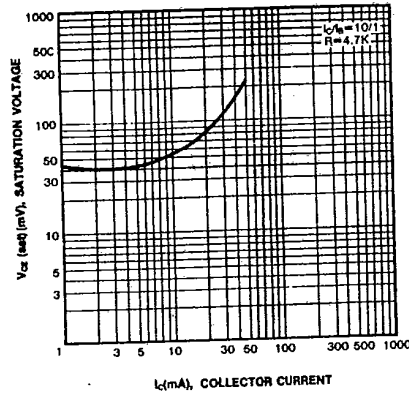
KSR1209

NPN EPITAXIAL SILICON TRANSISTOR

DC CURRENT GAIN



COLLECTOR-EMITTER SATURATION VOLTAGE



POWER DERATING

