

SAMSUNG SEMICONDUCTOR INC 14E D 7964142 0006874 3 T-29-23

KSC1072

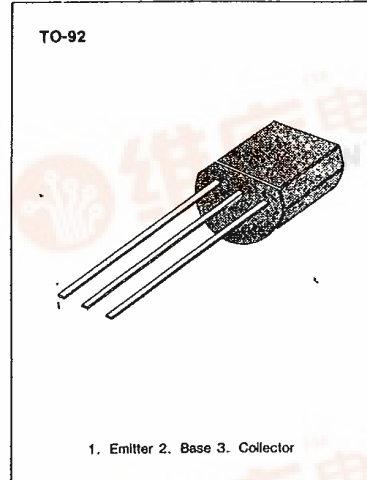
NPN EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY POWER AMPLIFIER

- Complement to KSA707
- Collector-Base Voltage $V_{CB0} = 60V$
- Collector Dissipation $P_c = 800mW$

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	45	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_c	700	mA
Collector Dissipation	P_c	800	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$



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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_c = 100\mu A, I_E = 0$	60			V
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_c = 10mA, I_B = 0$	45			V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = -100\mu A, I_C = 0$	5			V
Collector Cut-off Current	I_{CB0}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Emitter Cut-off Current	I_{EB0}	$V_{EB} = 3V, I_C = 0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = 2V, I_c = 50mA$	40		240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c = 0.5A, I_B = 50mA$		0.24	0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_c = 0.5A, I_B = 50mA$	0.7	0.89	1.1	V
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$ $f = 1MHz$		12		pF

h_{FE} CLASSIFICATION

Classification	R	O	Y
h_{FE}	40-80	70-140	120-240

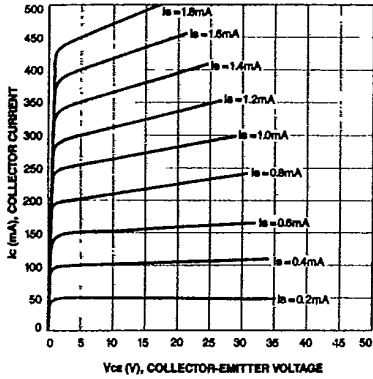


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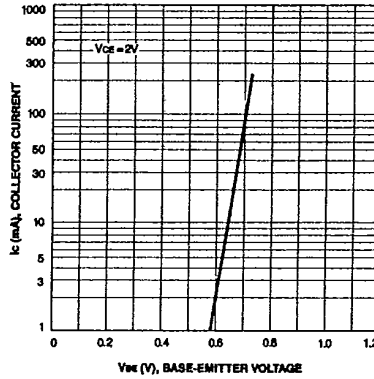
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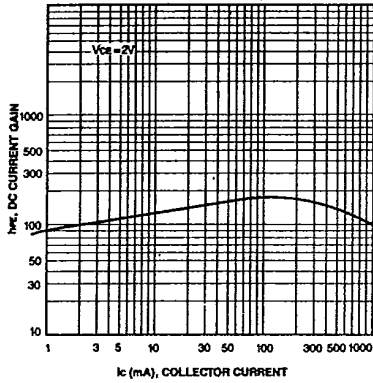
STATIC CHARACTERISTIC



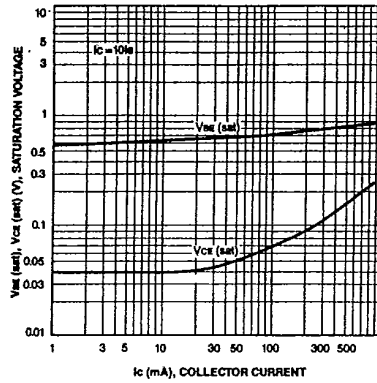
BASE-EMITTER ON VOLTAGE



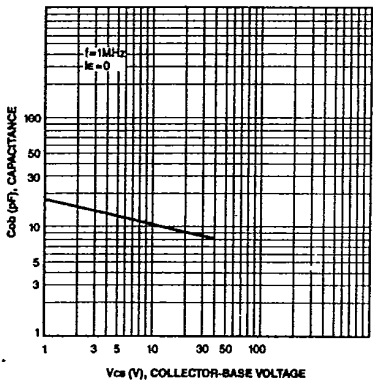
DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



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