

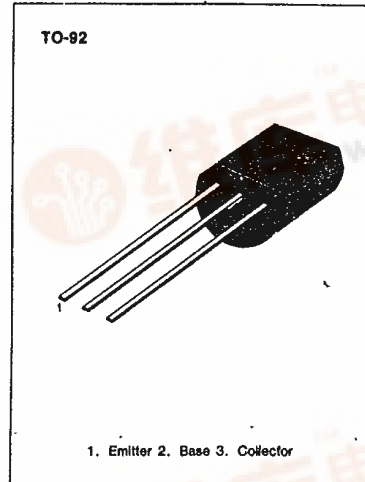
SAMSUNG SEMICONDUCTOR INC 14E D 7964142 0006892 5 T-29-23

KSC1506 NPN NPN EPITAXIAL SILICON TRANSISTOR**HIGH VOLTAGE TRANSISTOR**

- High Collector-Emitter Voltage $V_{CE0} = 300V$
- Current Gain Bandwidth Product $f_T = 40MHz$ (Min)

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	100	mA
Collector Dissipation	P_C	700	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_{CBO}	$I_C = 100\mu A, I_E = 0$	300			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	300			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -10\mu A, I_C = 0$	7			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 200V, I_E = 0$			100	nA
DC Current Gain	h_{FE}	$V_{CE} = 10V, I_C = 10mA$	40		240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$			2.0	V
Current Gain-Bandwidth Product	f_T	$V_{CE} = 30V, I_C = 10mA$	40	80		MHz
Output Capacitance	C_{ob}	$V_{CB} = 50V, I_E = 0$ $f = 1MHz$		4		pF

 h_{FE} CLASSIFICATION

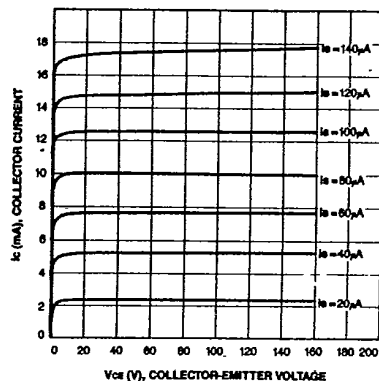
Classification	R	O	Y
h_{FE}	40-80	70-140	120-240

KSC1506

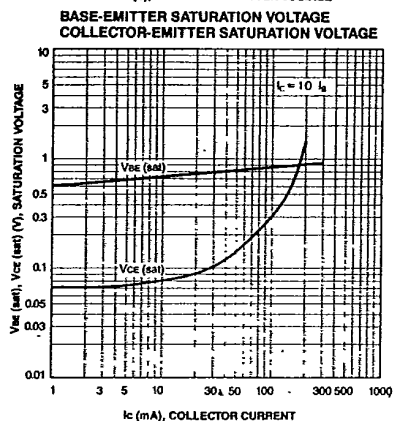
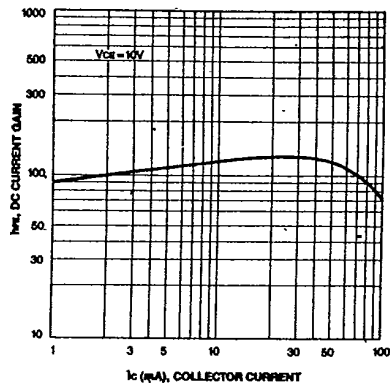
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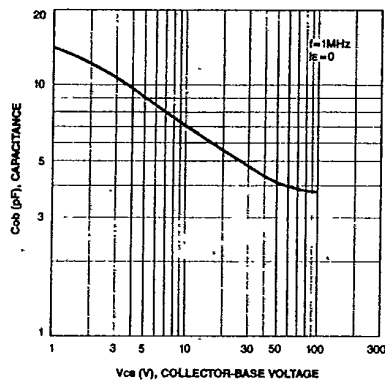
STATIC CHARACTERISTIC



DC CURRENT GAIN



COLLECTOR OUTPUT CAPACITANCE



3

