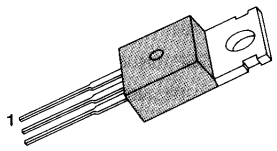
KSC1983 NPN EPITAXIAL SILICON TRANSISTOR

HIGH β POWER TRANSISTOR

TO-220



1.Base 2.Collector 3.Emitter

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Base Current	I_B	1	A
Collector Dissipation (T_C=25℃)	P_C	30	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 ~ 150	℃

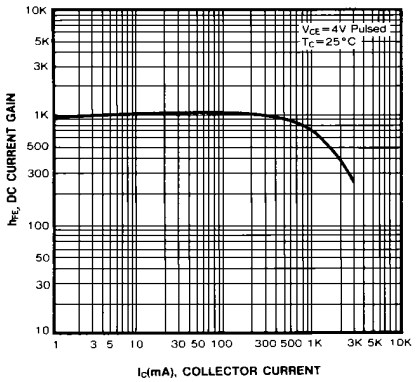
ELECTRICAL CHARACTERISTICS (T_C =25℃)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 80V, I_E = 0			100	uA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 6V, I_C = 0			100	uA
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C = 25mA, I_B = 0	60			V
★DC Current Gain	h_{FE}	V_{CE} = 4V, I_C = 0.5A	500			
★Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 2A, I_B = 0.05A			1	V
Current Gain Bandwidth Product	f_T	V_{CE} = 12V, I_E = 0.2A		15		MHz

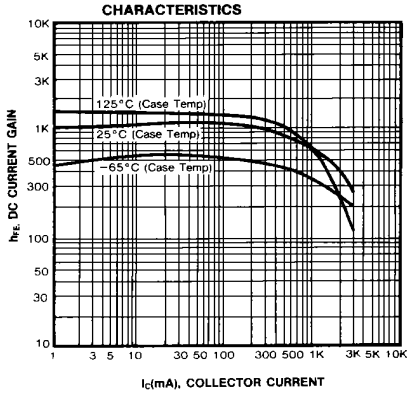
★ Pulse Test : PW ≤350μs, Duty Cycle ≤2% Pulsed

SAMSUNG ELECTRONICS

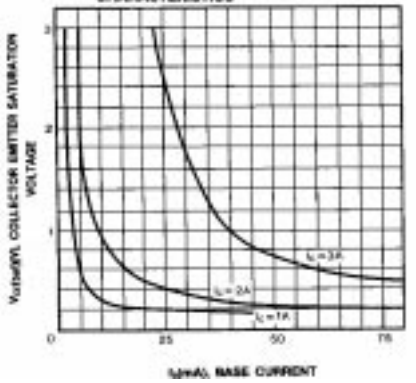
DC CURRENT GAIN



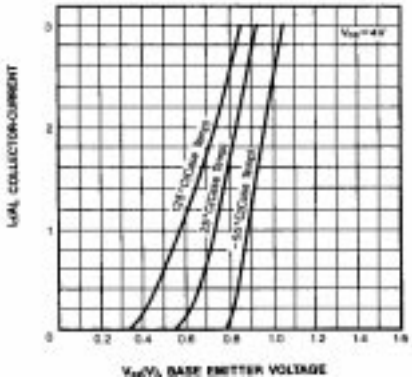
DC CURRENT GAIN TEMPERATURE CHARACTERISTICS



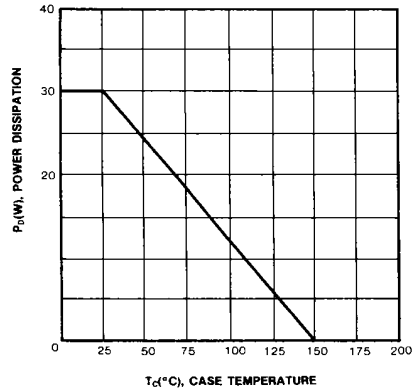
COLLECTOR EMITTER SATURATION CHARACTERISTICS



BASE-EMITTER ON VOLTAGE



POWER DERATING



SAFE OPERATING AREA