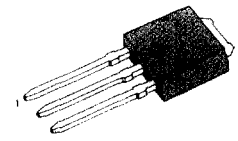
POWER AMPLIFIER APPLICATIONS

- High DC Current Gain
- Low Collector Emitter Saturation Voltage
- Built in a Damper Diode at E-C
- Darlington TR
- Complement to KSB907

I-PAK



1. Base 2. Collector 3. Emitter

ABSOLUTE MAXIMUM RATINGS

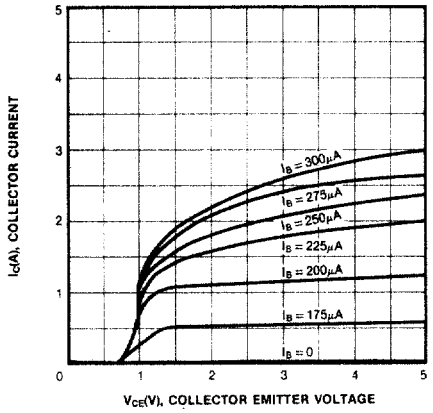
Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	40	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	3	A
Base Current	I_B	0.3	A
Collector Dissipation (T_C=25℃)	P_C	15	W
Collector Dissipation (T_A=25℃)	P_C	1	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 ~150	℃

3

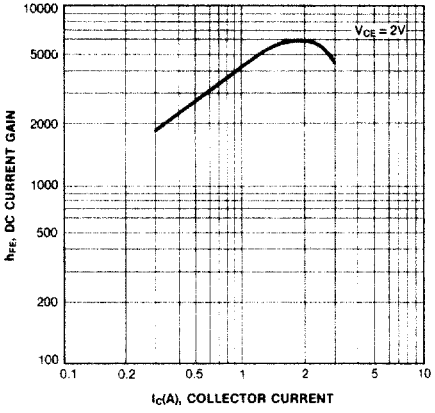
ELECTRICAL CHARACTERISTICS (T_C =25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C = 25mA, I_B = 0	40			V
Collector Cutoff Current	I_{CBO}	V_{CB} = 60V, I_E = 0			20	uA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 5V, I_C = 0			2.5	mA
DC Current Gain	$h_{FE}1$	V_{CE} = 2V, I_C = 1A	2000			
		h_{FE2} = 2V, I_C = 3A	1000			
Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 2A, I_B = 4mA			1.5	V
Base Emitter Saturation Voltage	V_{BE}(sat)	V_C = 2A, I_B = 4mA			2	V
Turn On Time	t_{ON}	I_B1 = -I_B2 = 6mA		0.1		uS
Storage Time	t_{STG}	V_{CC} = 30V		1		uS
Fall Time	t_F			0.2		uS

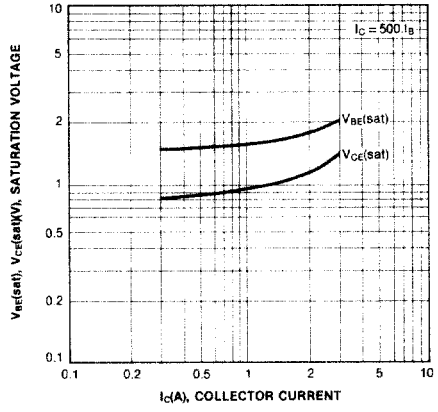
STATIC CHARACTERISTIC



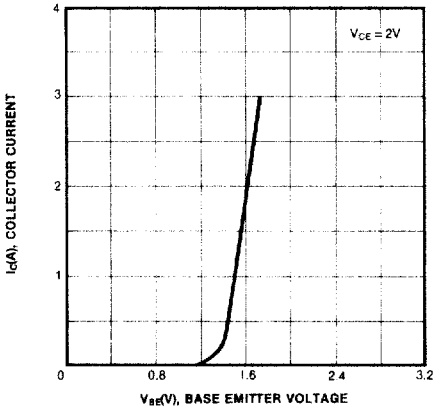
DC CURRENT GAIN



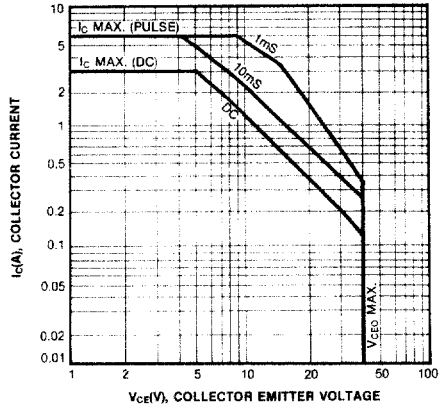
BASE EMITTER SATURATION VOLTAGE
COLLECTOR EMITTER SATURATION VOLTAGE



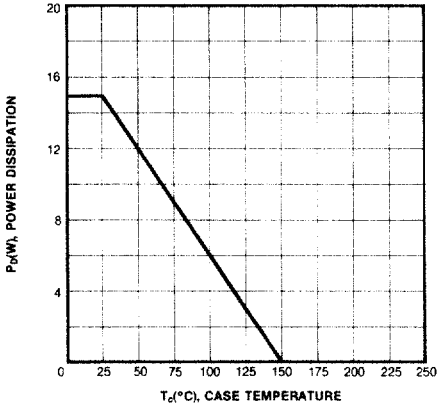
BASE EMITTER VOLTAGE



SAFE OPERATING AREA



POWER DERATING



SAMSUNG ELECTRONICS