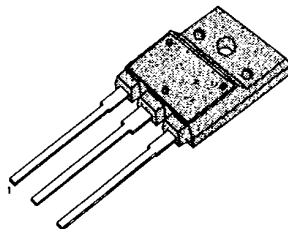


KSD5017**NPN TRIPLE DIFFUSED
PLANAR SILICON TRANSISTOR****COLOR TV HORIZONTAL OUTPUT
APPLICATIONS**High Collector-Base Voltage $V_{CB0}=1500V$ **ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ C$)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	1500	V
Collector-Emitter Voltage	V_{CE0}	800	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	I_C	6	A
Collector Current (Peak)	I_C	16	A
Collector Dissipation ($T_c=25^\circ C$)	P_C	60	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ C$

T-33-11

TO-3P(F)



1. Base 2. Collector 3. Emitter

3

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=800V, I_E=0$			10	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=5V, I_C=0$			1	mA
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=1A$	8			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=1A$			5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5A, I_B=1A$			1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE}=10V, I_C=1A$		3		MHz
Fall Time	t_f	$I_C=5A, I_B1=1A$ $I_B2=-2A, R_L=40\Omega$			0.4	μs

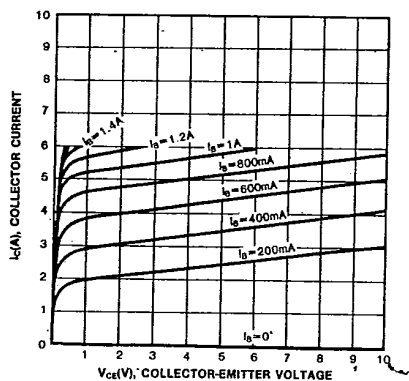


KSD5017

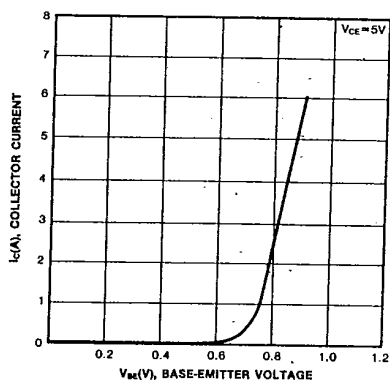
NPN TRIPLE DIFFUSED
PLANAR SILICON TRANSISTOR

T-33-11

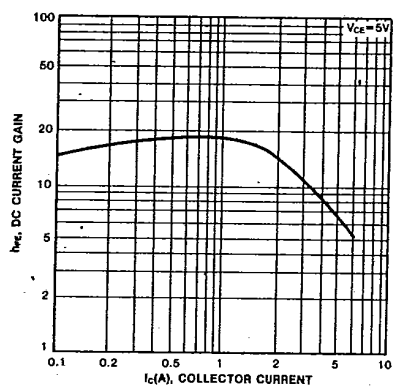
STATIC CHARACTERISTIC



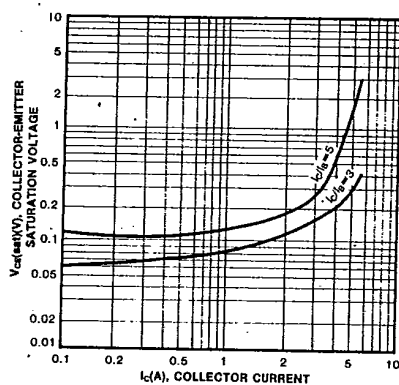
BASE-EMITTER ON VOLTAGE



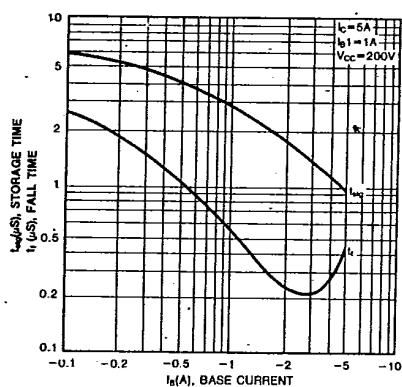
DC CURRENT GAIN



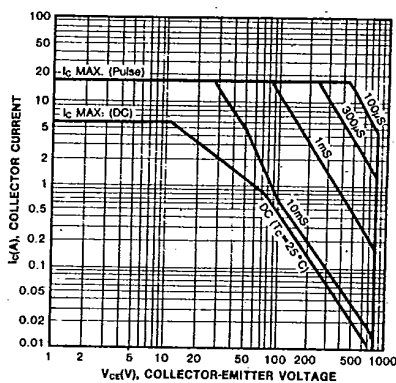
COLLECTOR-EMITTER SATURATION VOLTAGE



TURN ON TIME



SAFE OPERATING AREA

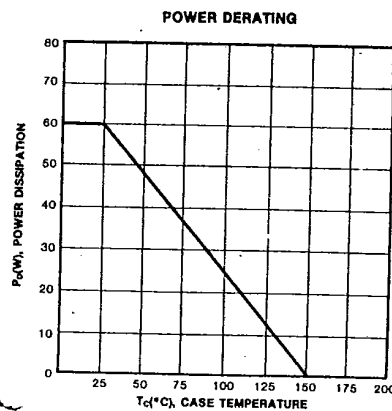
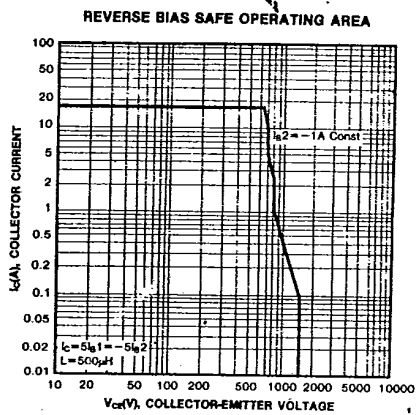


KSD5017

SAMSUNG SEMICONDUCTOR INC

**NPN TRIPLE DIFFUSED
PLANAR SILICON TRANSISTOR**

T-33-11



BU406/406H/408**NPN EPITAXIAL SILICON TRANSISTOR**

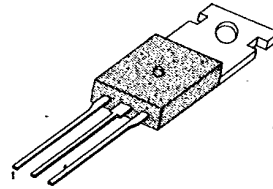
T-33-11

**HIGH VOLTAGE SWITCHING
USE IN HORIZONTAL DEFLECTION
OUTPUT STAGE**

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	400	V
Collector-Emitter Voltage	V_{CE0}	200	V
Emitter-Base Voltage	V_{EB0}	6	V
Collector Current	I_C	7	A
Collector Peak Current	I_{CM}	10	A
Base Current	I_B	4	A
Collector Dissipation	P_C	60	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65~150	$^\circ\text{C}$

TO-220



1. Base 2. Collector 3. Emitter

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

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Cutoff Current ($V_{BE}=0$)	I_{CES}	$V_{CE}=400\text{V}, V_{BE}=0$ $V_{CE}=250\text{V}, V_{BE}=0$ $V_{CE}=250\text{V}, V_{BE}=0, T_C=150^\circ\text{C}$		5 100 1	mA μA mA
Emitter Cutoff Current ($I_C=0$)	I_{EBO}	$V_{BE}=6\text{V}, I_C=0$		1	mA
Collector Emitter Saturation Voltage : BU406 : BU406H : BU408	$V_{CE(sat)}$	$I_C=5\text{A}, I_B=0.5\text{A}$ $I_C=5\text{A}, I_B=0.8\text{A}$ $I_C=6\text{A}, I_B=1.2\text{A}$		1 1 1	V V V
Base Emitter Saturation Voltage : BU406 : BU406H : BU408	$V_{BE(sat)}$	$I_C=5\text{A}, I_B=0.5\text{A}$ $I_C=5\text{A}, I_B=0.8\text{A}$ $I_C=6\text{A}, I_B=1.2\text{A}$		1.2 1.2 1.5	V V V
Current Gain-Bandwidth Product	f_T	$V_{CE}=10\text{V}, I_C=0.5\text{A}$	10		MHz
Turn-Off Time : BU406 : BU406H : BU408	t_{off}	$I_C=5\text{A}, I_B=0.5\text{A}$ $I_C=5\text{A}, I_B=0.8\text{A}$ $I_C=6\text{A}, I_B=1.2\text{A}$		0.75 0.4 0.4	μs μs μs



