

KSC5042F

NPN TRIPLE DIFFUSED PLANAR SILICON TRANSISTOR

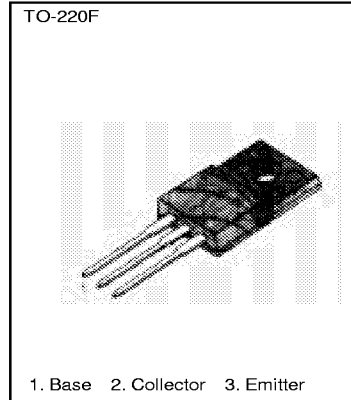
HIGH VOLTAGE SWITCHING DYNAMIC FOCUS APPLICATION

FEATURES

- High breakdown Voltage ($V_{CE0}=900V$)
- Small Cob (Cob typ=2.8pF)
- Wide S.O.A
- High reliability

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	1500	V
Collector Emitter Voltage	V_{CEO}	900	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	100	mA
Collector Current (PULSE)	I_C	300	mA
Collector Dissipation ($T_C=25^\circ C$)	P_C	6	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55~150	$^\circ C$



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

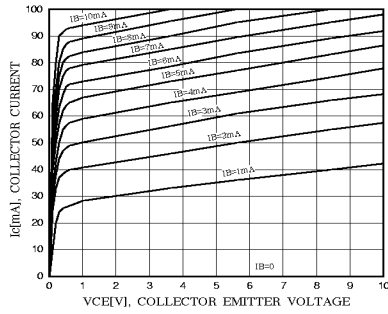
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 1mA, I_E = 0$	1500			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 5mA, I_B = 0$	900			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 1mA, I_C = 0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 900V, I_E = 0$			10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			10	μA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 10mA$	30			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 20mA, I_B = 4mA$			5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 20mA, I_B = 4mA$			2	V
Output Capacitance	C_{OB}	$V_{CB} = 100V, f = 1MHz$		2.8		pF



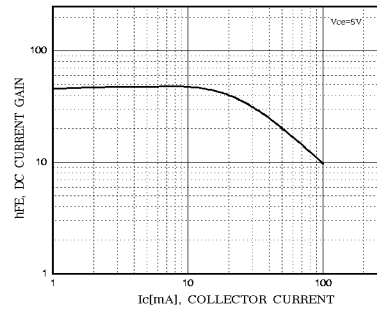
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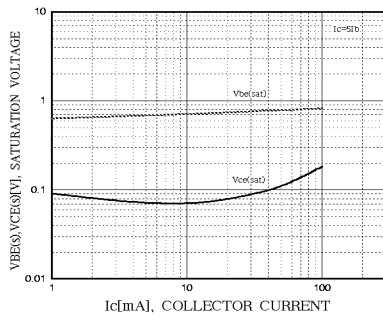
STATIC CHARACTERISTIC



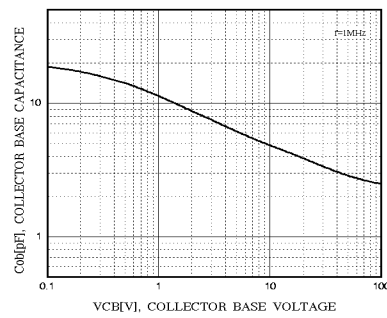
DC CURRENT GAIN



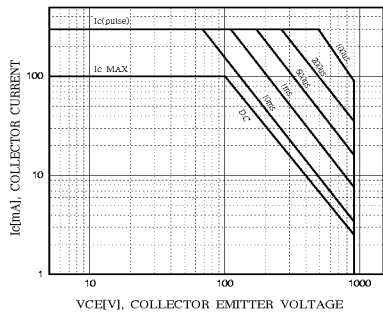
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR BASE CAPACITANCE



SAFE OPERATING AREA



POWER DERATING

