

KSC5337

NPN TRIPLE DIFFUSED PLANER SILICON TRANSISTOR

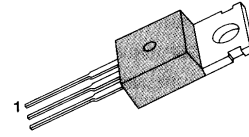
HIGH VOLTAGE POWER SWITCH SWITCHING APPLICATION

- High Speed Switching
- Wide SOA

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current (DC)	I_C	8	A
Collector Current (Pulse)	I_C	15	A
Base Current	I_B	4	A
Collector Dissipation ($T_C=25^{\circ}\text{C}$)	P_C	100	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ 150	$^{\circ}\text{C}$

TO-220



1. Gate 2. Drain 3. Source

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
* Collector Base Breakdown Voltage	BV_{CBO}	$I_C = 1\text{mA}$, $I_E = 0$	700			V
Collector Emitter Breakdown Voltage	BV_{CEO}	$I_C = 5\text{mA}$, $I_B = 0$	400		100	V
Collector Cut off Current	I_{CBO}	$V_{CB} = 700\text{V}$, $R_{BE} = 0$, $I_B = 0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 9\text{V}$, $I_C = 0$			40	μA
* DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}$, $I_C = 0.5\text{A}$ $V_{CE} = 1\text{V}$, $I_C = 3\text{A}$	15 8			
* Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1.3\text{A}$, $I_B = 0.13\text{A}$ $I_C = 3\text{A}$, $I_B = 0.6\text{A}$			0.5 0.7	V
* Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 1.3\text{A}$, $I_B = 0.13\text{A}$ $I_C = 3\text{A}$, $I_B = 0.6\text{A}$			1.1 1.25	V
Output Capacitance	C_{OB}	$V_{CB} = 10\text{V}$, $f = 0.1\text{MHz}$		70	150	pF
Turn On Time	t_{ON}	$V_{CC} = 125\text{V}$, $I_C = 1\text{A}$			200	ns
Storage Time	t_{STG}				2	μs
Fall Time	t_F	$I_{B1} = 0.2\text{A}$, $I_{B2} = -0.2\text{A}$			500	ns

★ Pulse Test : Pulse Width=5ms, Duty Cycle $\leq 10\%$

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