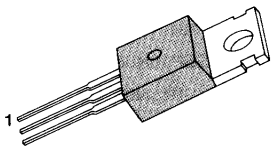
KSC5338 NPN SILICON TRANSISTOR

HIGH VOLTAGE POWER SWITCH
SWITCHING APPLICATION

- High Speed Switching
- Wide SOA

TO-220



1.Base 2.Collector 3.Emitter

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	1000	V
Collector-Emitter Voltage	V_{CEO}	450	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current (DC)	I_C	5	A
Collector Current (Pulse)	I_C	10	A
Base Current (DC)	I_B	2	A
Base Current (Pulse)	I_B	4	A
Collector Dissipation (T_C=25℃)	P_C	100	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-65 ~ 150	℃

ELECTRICAL CHARACTERISTICS (T_C =25℃)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Base Breakdown Voltage	BV_{CBO}	I_C = 1mA, I_E = 0	700			V
Collector Emitter Breakdown Voltage	BV_{CEO}	I_C = 5mA, I_B =0	400			V
Emitter-Base Breakdown Voltage	BV_{CBO}	I_C=1mA, I_E=0	9			V
Collector Cutoff Current	I_{CBO}	V_{CB} = 800V, V_{BE} = 0			10	uA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 9V, I_C = 0			10	uA
DC Current Gain	h_{FE1}	V_{CE} = 5V, I_C = 0.5A	15		30	
	h_{FE2}	V_{CE} = 1V, I_C = 2A	6			
Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 1A, I_B = 0.1A		0.55	0.8	V
		I_C = 2A, I_B = 0.4A			0.5	V
Base Emitter Saturation Voltage	V_{BE}(sat)	I_C = 1A, I_B = 0.1A			1.1	V
		I_C = 2A, I_B = 0.4A			1.25	V
Output Capacitance	C_{OB}	V_{CB} = 10V, f = 0.1MHz		70		pF
Input Capacitance	C_{IB}	V_{EB}=8V, I_C=0, f=0.1MHz		1000		pF
Current Gain Bandwidth Product	f_T	V_{EB} = 6V, I_C = 0.1A		14		MHz
Turn On Time	t_{ON}	V_{CC} = 125V,			200	nS
Storage Time	t_{STG}	I_C = 1A			2	uS
Fall Time	t_F	I_B1 = 0.2A, I_B2 = -0.2A			500	nS

★ Pulse Test : Pulse Width=5ms, Duty Cycle≤10%

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