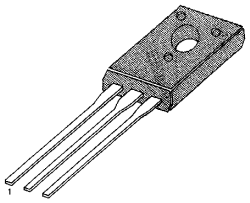
KSE13003 NPN SILICON TRANSISTOR

HIGH VOLTAGE SWITCH MODE APPLICATIONS

- High Speed Switching
- Suitable for Switching Regulator and Motor Control

TO-126



1 . Emitter 2. Collector 3. Base

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	1.5	A
Collector Current (Pulse)	I_C	3	A
Base Current	I_B	0.75	A
Collector Dissipation (T_C=25℃)	P_C	20	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-65 ~ 150	℃

ELECTRICAL CHARACTERISTICS (Tc=25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
★Collector- Base Breakdown Voltage	V_{CEO}(sus)	I_C = 5mA, I_B = 0	400			V
Emitter- Base Breakdown Voltage	I_{EBO}	V_{EB} = 9V, I_C = 0			10	uA
★DC Current Gain	h_{FE}	V_{CE} = 2V, I_C = 0.5A	8		40	
		V_{CE} = 2V, I_C =1A	5			
★Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 0.5A, I_B = 0.1A			0.5	V
		I_C = 1A, I_B = 0.25A			1	V
		I_C = 1.5A, I_B = 0.5A			3	V
★Base Emitter Saturation Voltage	V_{BE}(sat)	I_C = 0.5A, I_B = 0.1A			1	V
		I_C = 1A, I_B = 0.25A			1.2	V
Output Capacitance	C_{OB}	V_{CB} = 10V , f = 0.1MHz		21		pF
Current Gain Bandwidth Product	f_T	V_{CE} = 10V, I_C = 0.1A	4			MHz
Turn On Time	t_{ON}	V_{CC} =125V,			1.1	uS
Storage Time	t_{STG}	I_C = 1A			4.0	uS
Fall Time	t_F	I_{B1} = 0.2A, I_{B2} = -0.2A			0.7	uS

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

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