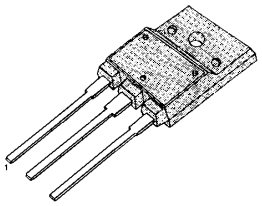
KSD5070

NPN TRIPLE DIFFUSED PLANAR SILICON TRANSISTOR

COLOR TV HORIZONTAL OUTPUT APPLICATION (DAMPER DIODE BUILT IN)

- High Collector-Base Voltage (V_{CBO}=1500V)
- High Switching Speed (t_F. max=0.4uS)

TO-3PF



1.Base 2.Collector 3.Emitter

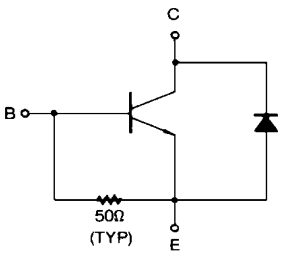
ABSOLUTE MIXIMUM RATING

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	1500	V
Collector-Emitter Voltage	V_{CEO}	800	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	2.5	A
Collector Current (Pulse)	I_C	10	A
Collector Dissipation (T_C=25°C)	P_C	50	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ 150	°C

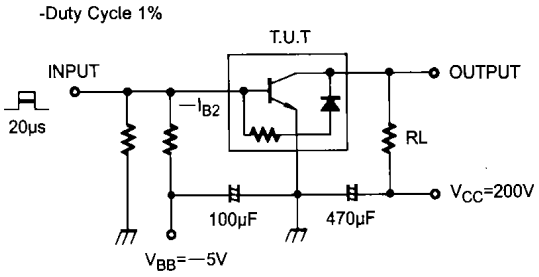
ELECTRICAL CHARACTERISTICS (T_C=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 800V, I_E = 0			10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 4V, I_C = 0	40		200	mA
DC Current Gain	h_{FE}	V_{CE} = 5V, I_C = 0.5A	8			
Collector Emitter Saturation Voltage	V_{CE}(sat)	I_C = 2A, I_B = 0.6A			8	V
Base Emitter Saturation Voltage	V_{BE}(sat)	I_C = 2A, I_B = 0.6A			1.5	V
Current Gain Bandwidth Product	f_T	V_{CE} = 10V, I_C = 0.5A		3		MHz
Damper Diode Turn On Voltage	V_F	I_F = 2.5A			2	V
Fall Time	t_F	I_C = 2A, I_B1 = 0.6A			0.4	μs
		I_B2 = - 1.2A, V_{CC} = 200V				
		RL = 100Ω				

-EQUIVALENT CIRCUIT



-SWITCHING TIME TEST CIRCUIT



Rev B.

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