

KSD5090

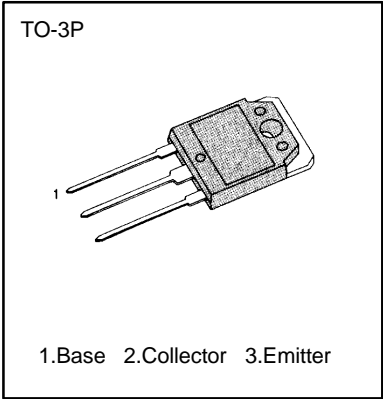
NPN TRIPLE DIFFUSED
PLANAR SILICON TRANSISTOR

COLOR TV HORIZONTAL OUTPUT
APPLICATIONS (DAMPER DIODE BUILT IN)

- High Collector-Base Voltage ($V_{CBO}=1500V$)
- High Speed Switching ($t_f = 0.1\mu s$)

ABSOLUTE MAXIMUM RATINGS

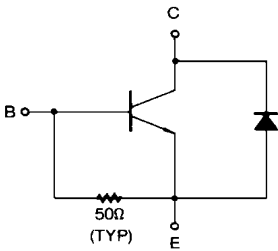
Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	1500	V
Collector Emitter Voltage	V_{CEO}	800	V
Emitter Base Voltage	V_{BEO}	6	V
Collector Current (DC)	I_C	8	A
Collector Current (Pulse)	I_C	30	A
Collector Dissipation ($T_C=25^{\circ}C$)	P_C	150	W
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 ~ 150	$^{\circ}C$



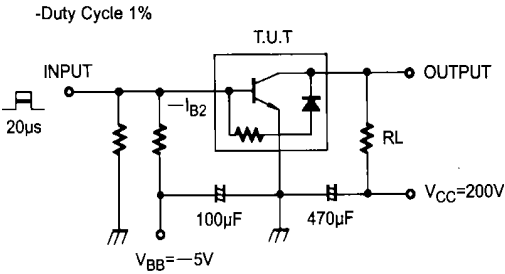
ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}C$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current ($V_{BE}=0$)	I_{CES}	$V_{CE} = 1500V, R_{BE} = 0$			1	mA
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_{FE1}	$V_{CE} = 5V, I_C = 1.0A$	8			
	h_{FE2}	$V_{CE} = 5V, I_C = 6.0A$	5			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 6A, I_B = 1.2A$			5.0	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 6A, I_B = 1.2A$			1.5	V
Damper Diode Turn On Voltage	V_F	$I_F=8A$			2.0	V
Fall Time	t_f	$I_C = 6A, I_{B1} = 1.2A$ $I_{B2} = - 2.4A$ $V_{CC} = 200V, R_L = 33.3\Omega$		0.1	0.3	μs

-EQUIVALENT CIRCUIT



-SWITCHING TIME TEST CIRCUIT



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