

isc Silicon NPN Power Transistor

KSD5001

DESCRIPTION

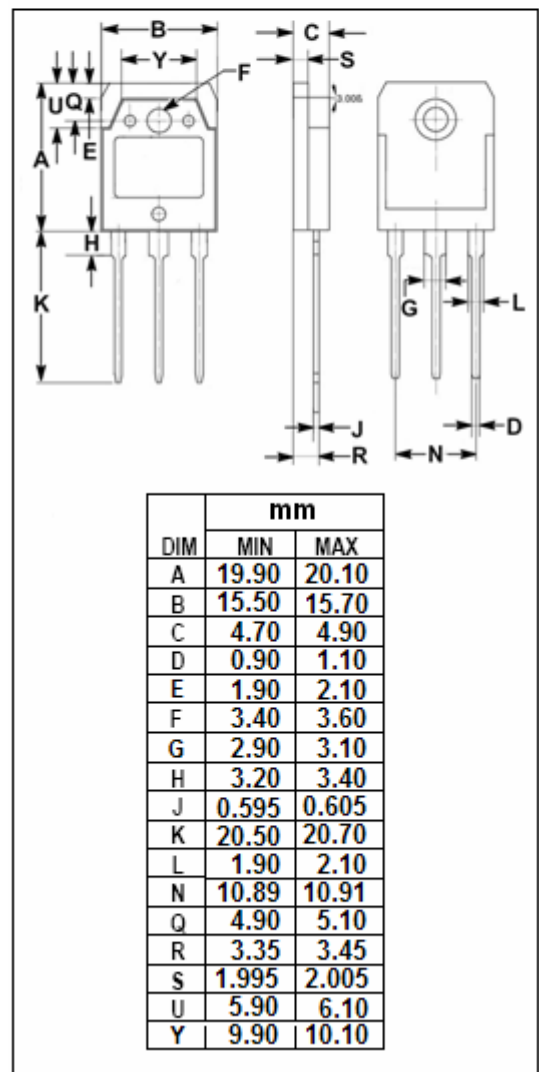
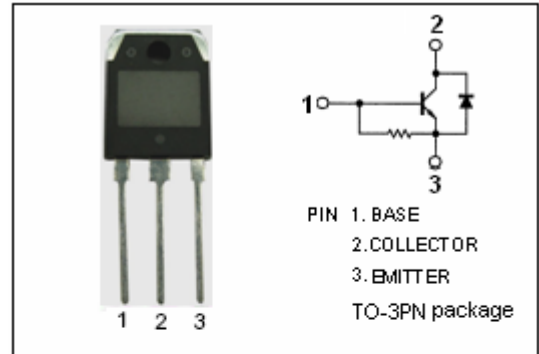
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- High Reliability
- Built-in Damper Diode

APPLICATIONS

- Designed for color TV horizontal output applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current- Continuous	3.5	A
I_{CP}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}C$	80	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**KSD5001****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 2.5\text{A}; I_B= 0.8\text{A}$			8.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 2.5\text{A}; I_B= 0.8\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 800\text{V}; I_E= 0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 4\text{V}; I_C= 0$	40		130	mA
h_{FE}	DC Current Gain	$I_C= 0.5\text{A}; V_{CE}= 5\text{V}$	8			
f_T	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A}; V_{CE}= 10\text{V}$		3		MHz
V_{ECF}	C-E Diode Forward Voltage	$I_F= 3.5\text{A}$			2.0	V
t_f	Fall Time	$I_C= 3\text{A}, I_{B1}= 0.8\text{A}; I_{B2}= -1.6\text{A}$ $R_L= 66.7\ \Omega; V_{CC}= 200\text{V}$			0.4	μs