

**Silicon NPN Power Transistor**

**KSD5070**

**DESCRIPTION**

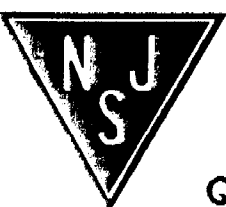
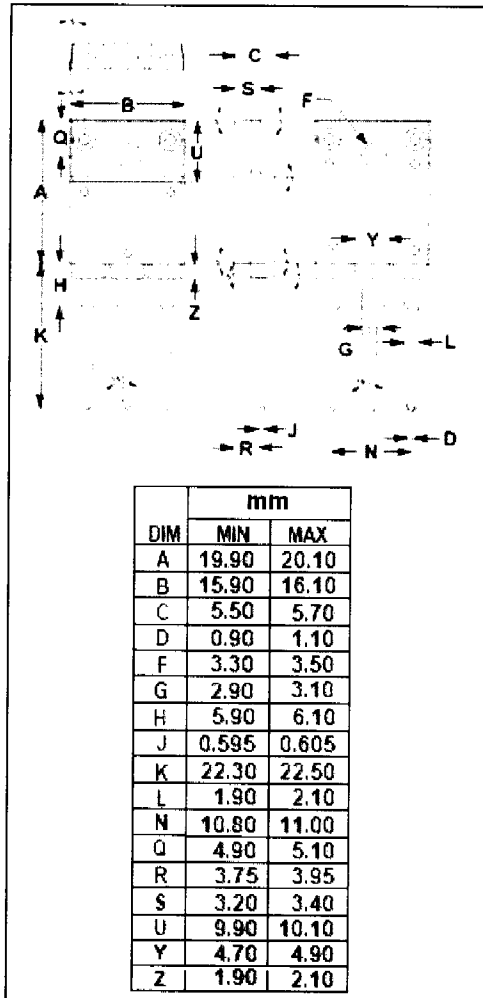
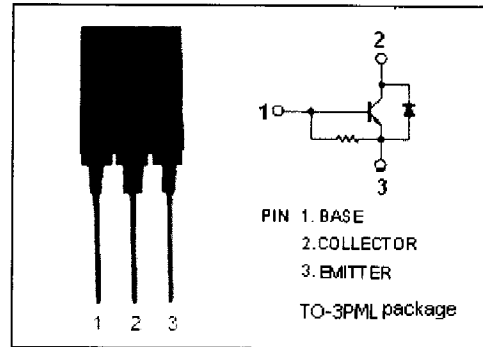
- High Breakdown Voltage-  
 :  $V_{CBO} = 1500V$  (Min)
- High Switching Speed
- High Reliability
- Built-in Damper Diode

**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	6	V
$I_C$	Collector Current- Continuous	2.5	A
$I_{CP}$	Collector Current-Peak	10	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ C$	50	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



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**Silicon NPN Power Transistor****KSD5070****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

<b>SYMBOL</b>	<b>PARAMETER</b>	<b>CONDITIONS</b>	<b>MIN</b>	<b>TYP.</b>	<b>MAX</b>	<b>UNIT</b>
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2A; I <sub>B</sub> = 0.6A			8.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 2A; I <sub>B</sub> = 0.6A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 800V ; I <sub>E</sub> = 0			10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 4V ; I <sub>C</sub> = 0	40		200	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 0.5A ; V <sub>CE</sub> = 5V	8			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 10V		3		MHz
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 2.5A			2.0	V
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 2A , I <sub>B1</sub> = 0.6A ; I <sub>B2</sub> = -1.2A R <sub>L</sub> = 100 Ω ; V <sub>CC</sub> = 200V			0.4	μ s