

**Silicon NPN Power Transistor**

**KSD5059**

**DESCRIPTION**

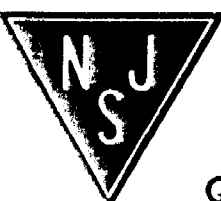
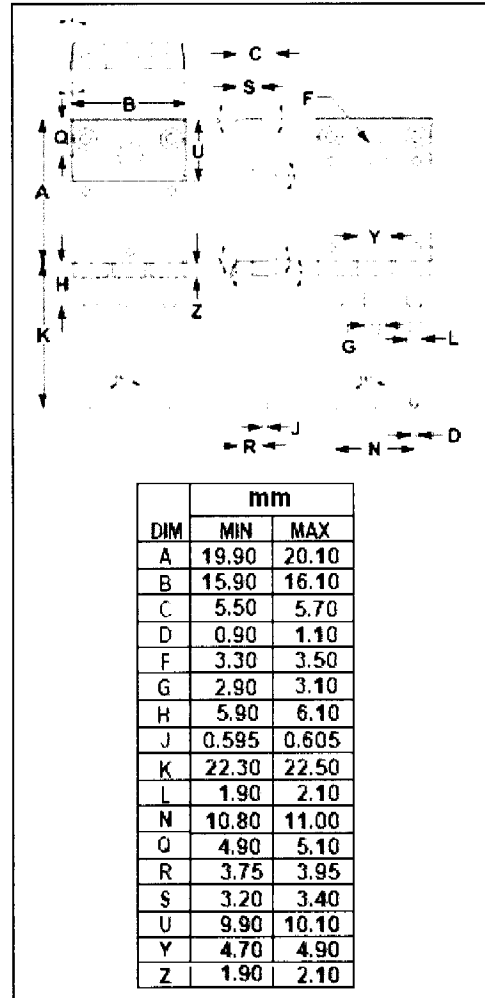
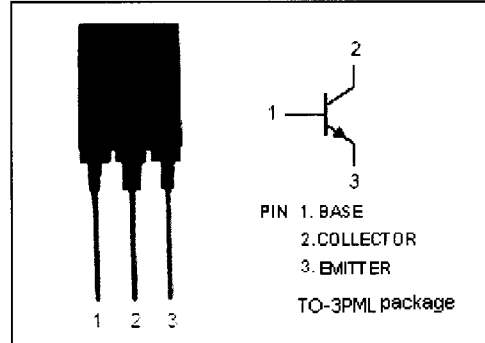
- High Breakdown Voltage-  
 :  $V_{CB0} = 1500V$  (Min)
- High Switching Speed
- High Reliability

**APPLICATIONS**

- Designed for color monitor horizontal output applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CB0}$	Collector-Base Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current- Continuous	6	A
$I_{CP}$	Collector Current-Peak	20	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	60	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



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### ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 100\text{mA}; I_B= 0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 5\text{A}; I_B= 1\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 5\text{A}; I_B= 1\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 800\text{V}; I_E= 0$			10	$\mu\text{A}$
$I_{CES}$	Collector Cutoff Current	$V_{CE}= 1500\text{V}; V_{BE}= 0$			1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 4\text{V}; I_C= 0$			1	mA
$h_{FE-1}$	DC Current Gain	$I_C= 1\text{A}; V_{CE}= 5\text{V}$	8			
$h_{FE-2}$	DC Current Gain	$I_C= 5\text{A}; V_{CE}= 5\text{V}$	3			
$t_f$	Fall Time	$I_C= 4\text{A}, I_{B1}= 0.8\text{A}; I_{B2}= -1.6\text{A}$			0.3	$\mu\text{s}$