

isc Silicon NPN Power Transistor

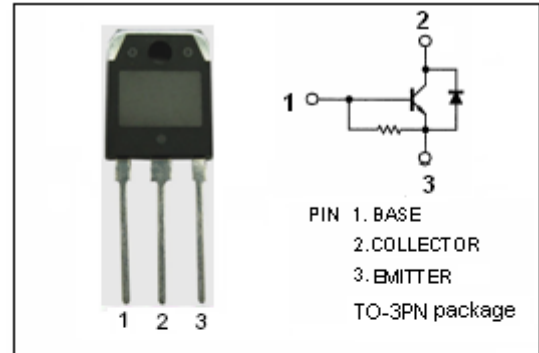
2SD1709

DESCRIPTION

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

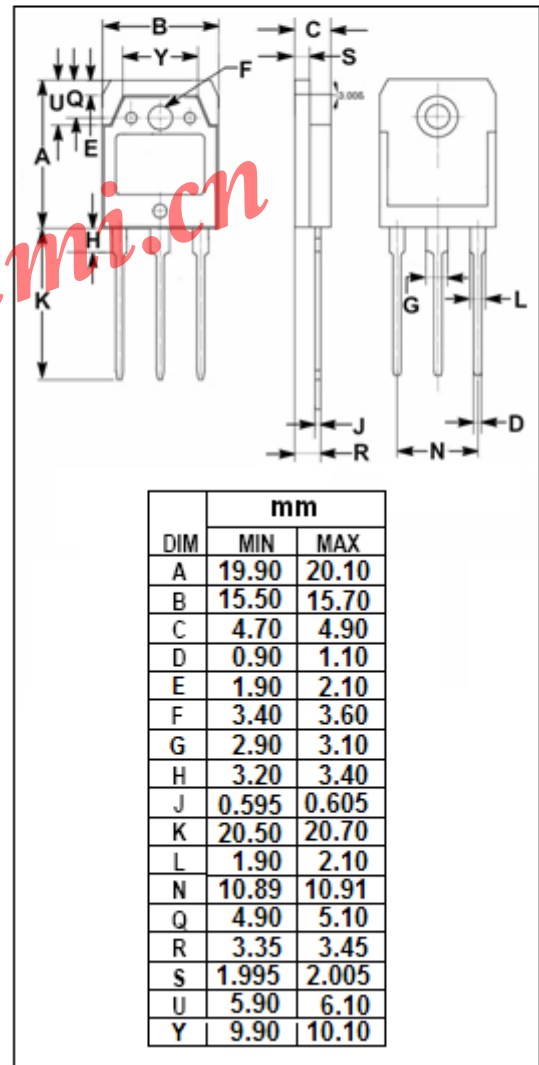
APPLICATIONS

- Color TV horizontal deflection output
- Color display horizontal deflection output



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	5	A
$I_{CP}$	Collector Current-Pulse	16	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	100	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



**isc Silicon NPN Power Transistor****2SD1709****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=2\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=2\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=800\text{V}; I_E=0$			10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$	40		130	mA
$h_{FE-1}$	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	8			
$t_f$	Fall Time	$I_C=4\text{A}; I_{B1}=0.8\text{A}; I_{B2}=-1.6\text{A}$ $P_W=20\mu\text{s}; \text{Duty Cycle}\leq 1\%$			0.5	$\mu\text{s}$

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