

isc Silicon NPN Power Transistor

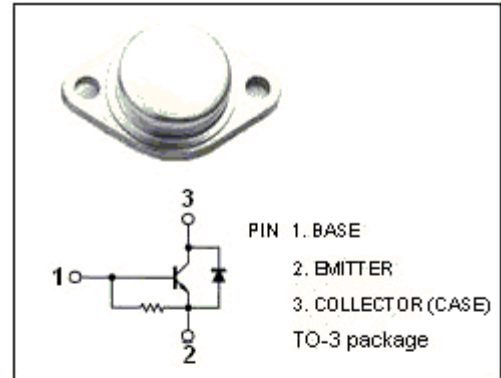
2SD904

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 5.0V$ (Max.) @ $I_C = 3A$
- Built-in Damper Diode

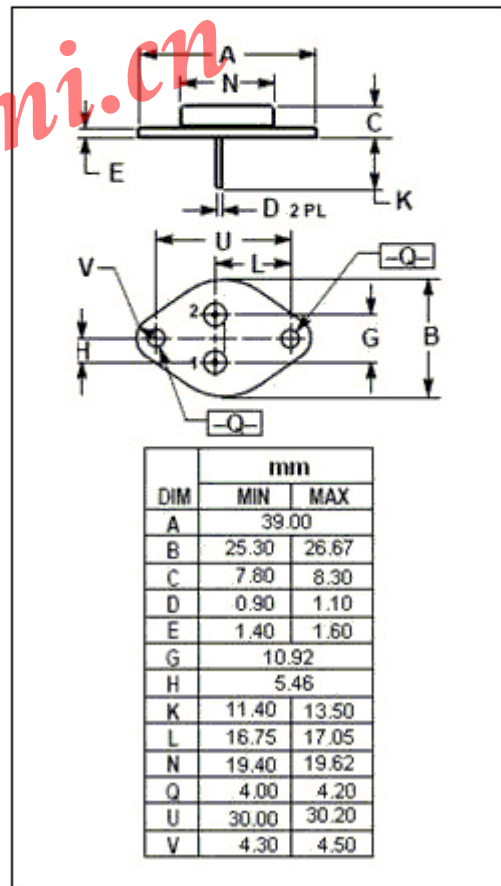
APPLICATIONS

- 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	600	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	7	A
I_{CM}	Collector Current- Peak	10	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ C$	3	W
	Collector Power Dissipation @ $T_C = 25^\circ C$	50	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-40~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0, L=35\text{mH}$	600			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=200\text{mA}; I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.75\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.6\text{A}$			1.6	V
I_{CES}	Collector Cutoff Current	$V_{CB}=1500\text{V}; V_{BE}=0$			1.0	mA
I_{EBO}	Collector Cutoff Current	$V_{EB}=4\text{V}; I_C=0$	44		100	mA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8			
h_{FE-2}	DC Current Gain	$I_C=4\text{A}; V_{CE}=5\text{V}$	5		10	
V_{ECF}	C-E Diode Forward Voltage	$I_F=4\text{A}$			2.0	V