

isc Silicon NPN Power Transistor

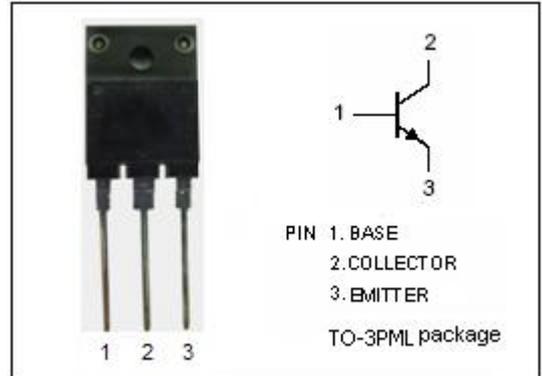
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DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CE0(SUS)} = 650V$ (Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

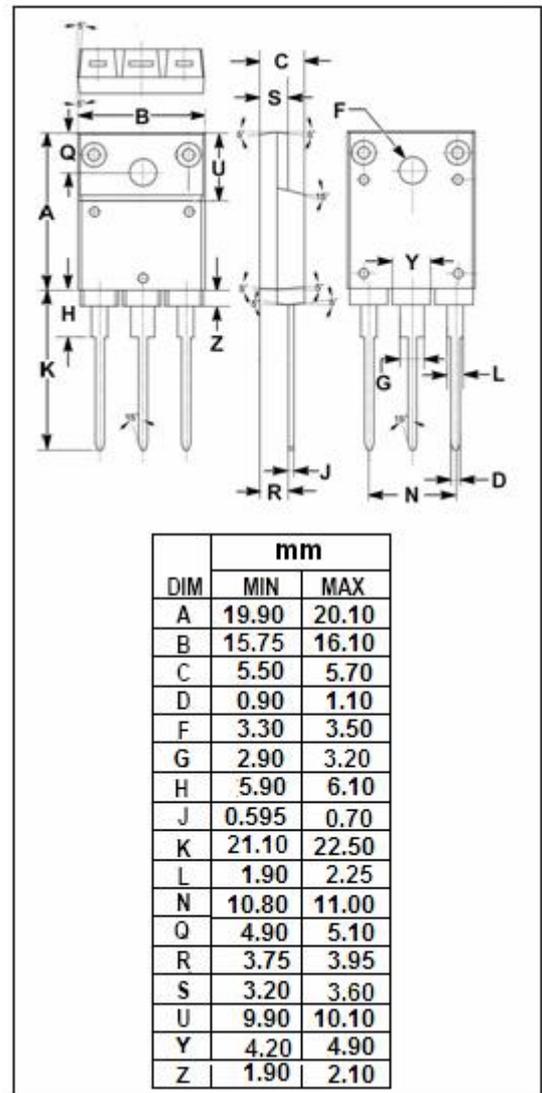
APPLICATIONS

- Designed for use in horizontal deflection circuits of color TV receivers.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1400	V
V_{CEO}	Collector-Emitter Voltage	650	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	10	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current- Continuous	5	A
I_{BM}	Base Current-Peak	8	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	-65~150	$^{\circ}C$



SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.8	$^{\circ}C/W$

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}$; $I_B=0$	650			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}$; $I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=6\text{A}$; $I_B=1.2\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=6\text{A}$; $I_B=1.2\text{A}$			1.1	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1500\text{V}$; $V_{BE}=0$ $V_{CE}=1500\text{V}$; $V_{BE}=0$; $T_c=125^\circ\text{C}$			1.0 2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}$; $I_C=0$			0.1	mA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=5\text{V}$	10		30	
h_{FE-2}	DC Current Gain	$I_C=6\text{A}$; $V_{CE}=5\text{V}$	5		9.5	
C_{OB}	Output Capacitance	$I_E=0$; $V_{CB}=10\text{V}$; $f_{test}=1\text{MHz}$		200		pF
t_f	Fall Time	$I_C=6\text{A}$; $I_{B1}=I_{B2}=1.2\text{A}$;			1.0	μs

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