

isc Silicon NPN Power Transistor

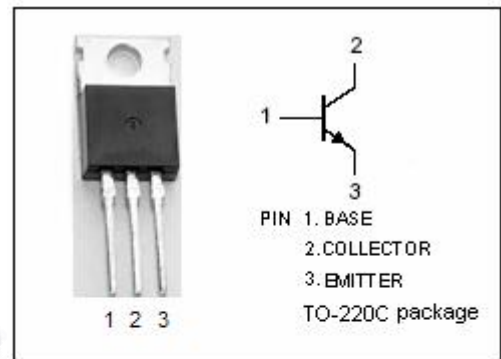
2SD401

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V$ (Min)
- Collector Power Dissipation-
: $P_C = 30W(\text{Max}) @ T_C = 25^\circ C$
- Complement to Type 2SB546

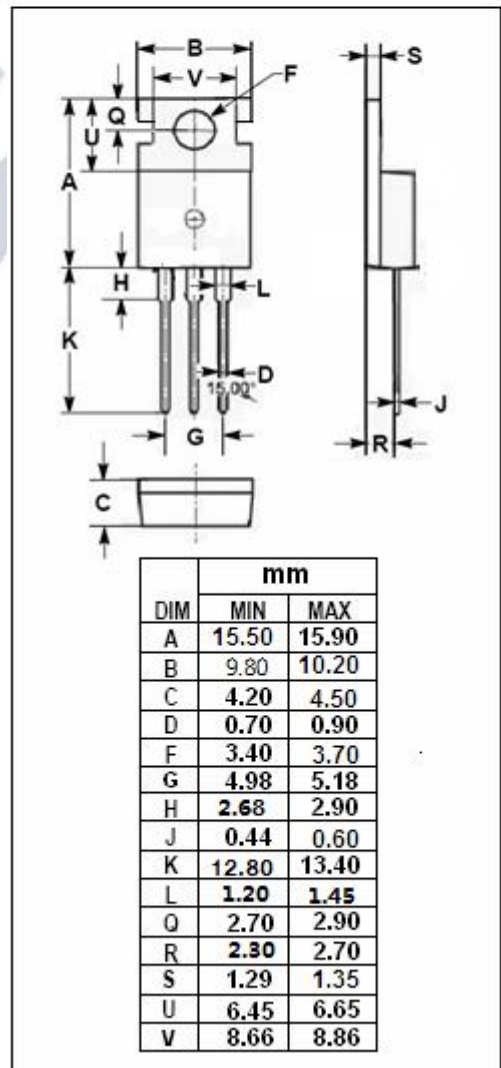
APPLICATIONS

- Designed for use in line-operated color TV vertical deflection of complementary symmetry circuit.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	3	A
I_{BM}	Base Current-Peak	1.5	A
P_C	Total Power Dissipation @ $T_C=25^\circ C$	30	W
T_J	Junction Temperature	150	
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	78	$^\circ C/W$
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.16	$^\circ C/W$

isc Silicon NPN Power Transistor**2SD401****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=0.5\text{A}; I_B=50\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=150\text{V}; I_E=0$			50	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			50	μA
h_{FE}	DC Current Gain	$I_C=0.4\text{A}; V_{CE}=10\text{V}$	40			
f_T	Current-Gain—Bandwidth Product	$I_C=0.4\text{A}; V_{CE}=10\text{V}$		7		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		45		pF