

isc Silicon NPN Power Transistor
2SD402
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V$ (Min)
- Collector Power Dissipation-
: $P_C = 30W(\text{Max}) @ T_C = 25^\circ\text{C}$
- Complement to Type 2SB547
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

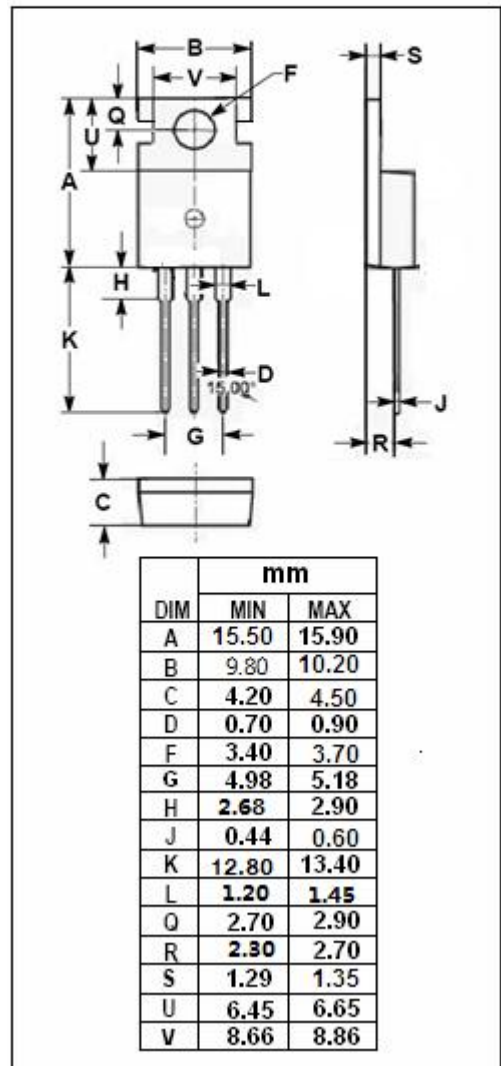
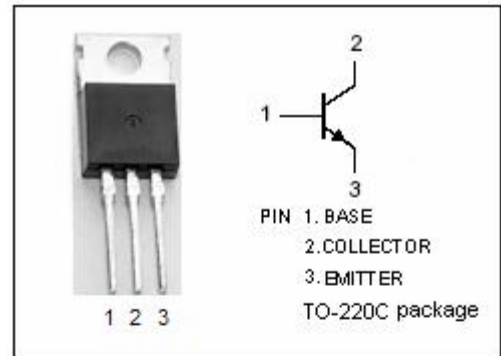
- Designed for use in line-operated color TV vertical deflection of complementary symmetry circuit.

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

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 @ $T_C = 25^\circ\text{C}$	30	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



isc Silicon NPN Power Transistor**2SD402****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA ; I _B = 0	150			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 50mA			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 150V; I _E = 0			50	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			50	μ A
h _{FE}	DC Current Gain	I _C = 0.4A; V _{CE} = 10V	40			
f _T	Current-Gain—Bandwidth Product	I _C = 0.4A; V _{CE} = 10V		7		MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1MHz		45		pF

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