

isc Silicon NPN Power Transistor
2SD868
DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 5.0V$ (Max.)@ $I_C = 2A$
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

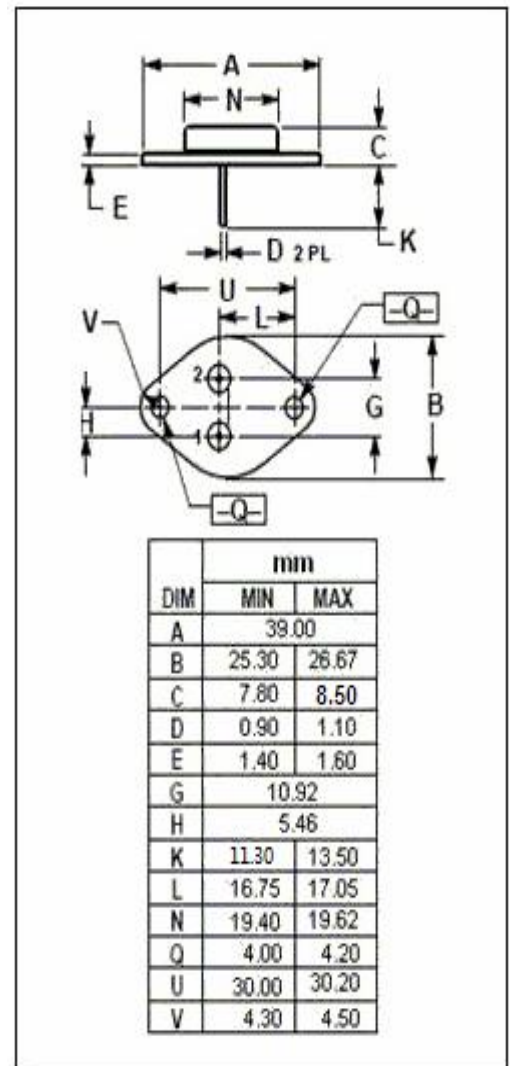
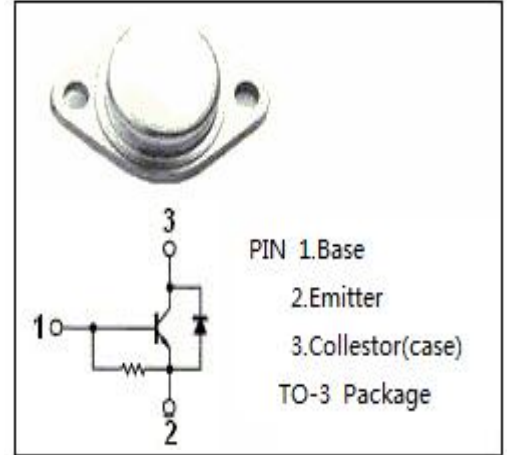
- Designed for use in color TV deflection circuits.

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	5	V
I_C	Collector Current- Continuous	2.5	A
I_B	Base Current- Continuous	1.0	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	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{th-j-c}	Thermal Resistance, Junction to Case	2.5	$^\circ C/W$



isc Silicon NPN Power Transistor**2SD868****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{EBO}	Emitter-Base Breakdown Voltage	I _E = 200mA; I _C = 0	5.0			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.6A			8.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.6A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V; I _E = 0			10	μA
h _{FE}	DC Current Gain	I _C = 0.5A; V _{CE} = 5V	8			
V _{ECF}	C-E Diode Forward Voltage	I _F = 2.5A			2.0	V
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		100		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 10V		3		MHz
t _f	Fall Time	I _C = 2A, I _{Bend} = 0.6A			1.0	μs

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