

isc Silicon NPN Power Transistor

2SD897

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 5.0V$ (Max.) @ $I_C = 1A$
- Built-in Damper Diode

APPLICATIONS

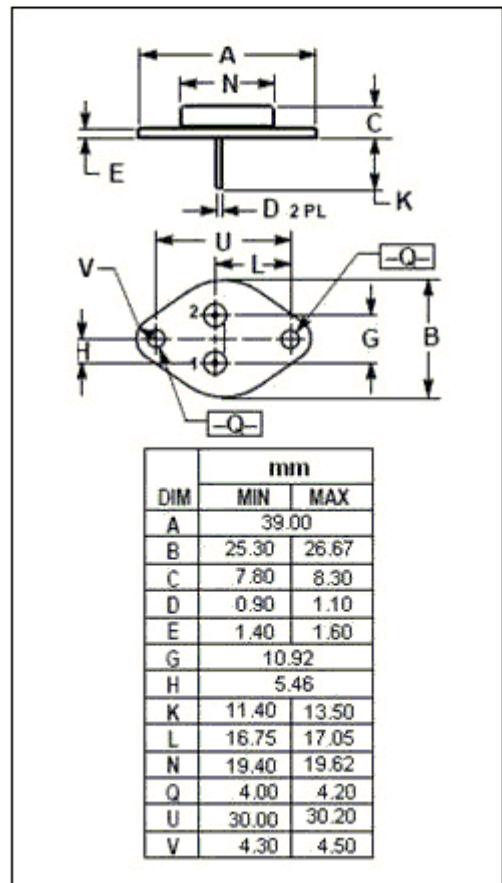
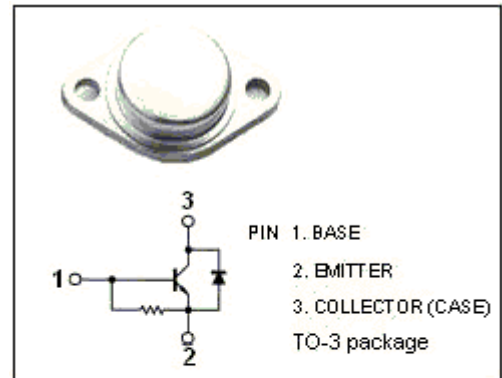
- Designed for use in color TV deflection circuits.

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	6	V
I_C	Collector Current- Continuous	1.5	A
I_{CM}	Collector Current- Peak	5.0	A
I_B	Base Current- Continuous	0.8	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	$^\circ C$

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**2SD897****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{EBO}	Emitter-Base Breakdown Voltage	$I_E=200\text{mA}; I_C=0$	6.0			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.2\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.2\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=1500\text{V}; R_{BE}=0$			500	μA
h_{FE}	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	8			
V_{ECF}	C-E Diode Forward Voltage	$I_F=2\text{A}$			2.5	V
f_T	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=10\text{V}$		3		MHz
t_f	Fall Time	$I_C=0.8\text{A}, I_{B1(end)}=0.16\text{A}$			1.0	μs