

isc Silicon NPN Power Transistor
3DD15D
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min.})$
- DC Current Gain-
: $h_{FE} = 30 \sim 250(\text{Min.}) @ I_C = 2A$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 2.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

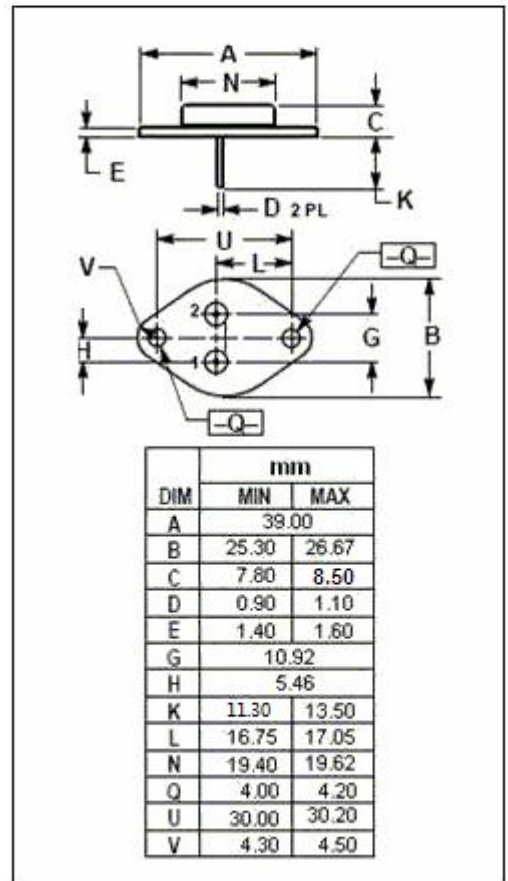
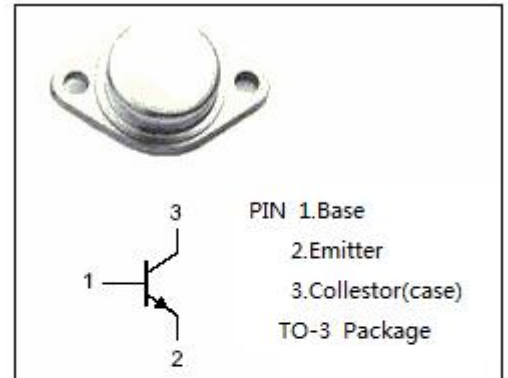
- Designed for B&W TV horizontal output , regulated power supply and power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
P_C	Collector Power Dissipation@ $T_C = 75^\circ\text{C}$	50	W
T_J	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	2.0	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=5\text{mA}; I_B=0$	200		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=1\text{mA}; I_E=0$	300		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	5		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2.5\text{A}; I_B=0.25\text{A}$		1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=50\text{V}; I_B=0$		1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=150\text{V}; I_E=0$		0.5	mA
h_{FE}	DC Current Gain	$I_C=2\text{A}; V_{CE}=10\text{V}$	30	250	
t_f	Fall Time	$I_C=3\text{A}; I_{B1}=0.2\text{A}, I_{B2}=-0.3\text{A}$,		1.0	μs

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