

isc Silicon NPN Power Transistor
3DK106
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min.})$
- 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

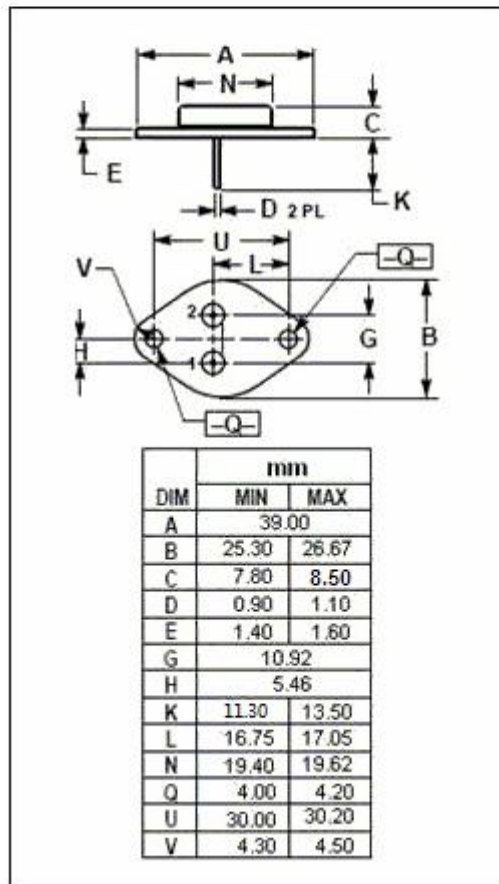
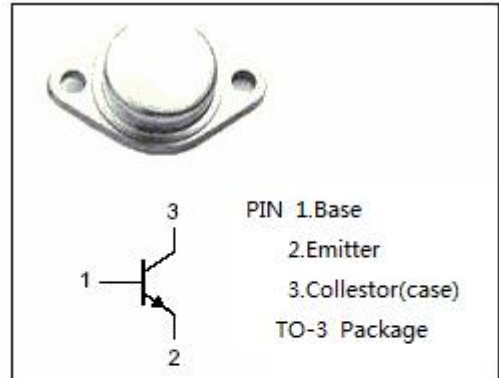
- Designed for B&W TV horizontal output , regulated power supply and power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50-200	V
V_{CEO}	Collector-Emitter Voltage	50-200	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	7.5	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°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 5mA; I _B = 0	50-200		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E =10mA; I _C = 0	4		
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.25A		1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.25A		1.2	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 20V; I _B =0		1.0	mA
h _{FE}	DC Current Gain	I _C = 2.5A; V _{CE} = 3V	20		

	B	C	D	E	F
V _{CEO}	50V	80V	110V	150V	200V

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