

isc Silicon PNP Power Transistor
2N6213
DESCRIPTION

- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -350V(\text{Min})$
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

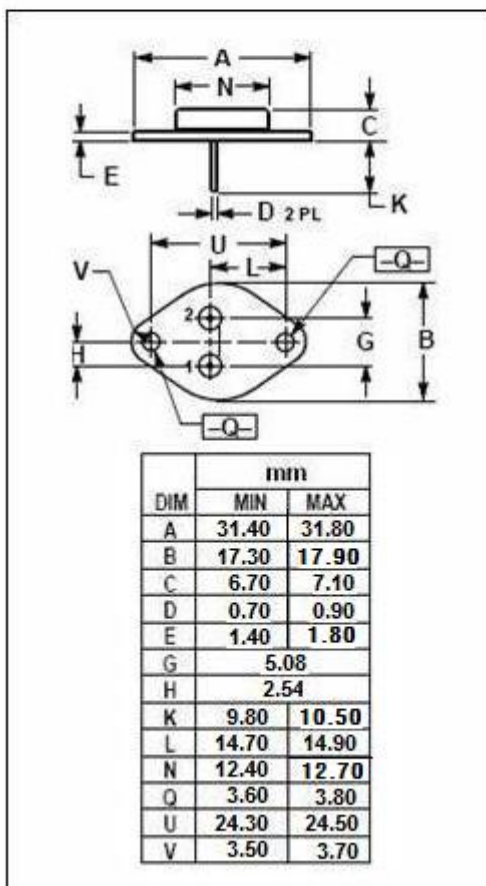
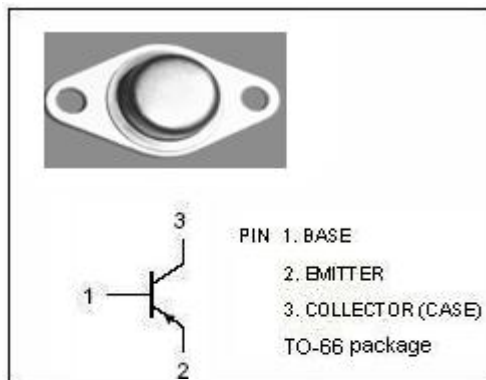
- Designed for high-speed switching and linear amplifier application for high-voltage operational amplifier, switching regulators, converters, inverters, deflection stages and high fidelity amplifiers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-350	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-2	A
I_{CM}	Collector Current-Peak	-5	A
I_B	Collector Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	35	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5.0	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}$; $I_B = 0$	-350			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}$; $I_C = 0$	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}$; $I_B = -125\text{mA}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}$; $I_B = -125\text{mA}$			-1.4	V
I_{CEV}	Collector Cutoff Current	$V_{CE} = -360\text{V}$; $V_{BE(off)} = -1.5\text{V}$			-0.5	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -150\text{V}$; $I_B = 0$			-5.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -6\text{V}$; $I_C = 0$			-0.5	mA
h_{FE}	DC Current Gain	$I_C = -1\text{A}$; $V_{CE} = -4\text{V}$	10		100	
f_T	Current-Gain—Bandwidth Product	$I_C = -0.2\text{A}$; $V_{CE} = -10\text{V}$; $f_{test} = 5\text{MHz}$	10			MHz
C_{OB}	Output Capacitance	$I_E = 0$; $V_{CB} = -10\text{V}$; $f_{test} = 1\text{MHz}$			220	pF

Switching times

t_r	Rise Time	$I_C = -1\text{A}$, $V_{CC} = -200\text{V}$; $I_{B1} = -I_{B2} = -125\text{mA}$			0.6	μs
t_s	Storage Time				2.5	μs
t_f	Fall Time				0.6	μs

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