

isc Silicon PNP Power Transistors

2N5738

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -100V(\text{Min.})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -0.5V(\text{Max.}) @ I_C = -5A$
- Wide Area of Safe Operation

APPLICATIONS

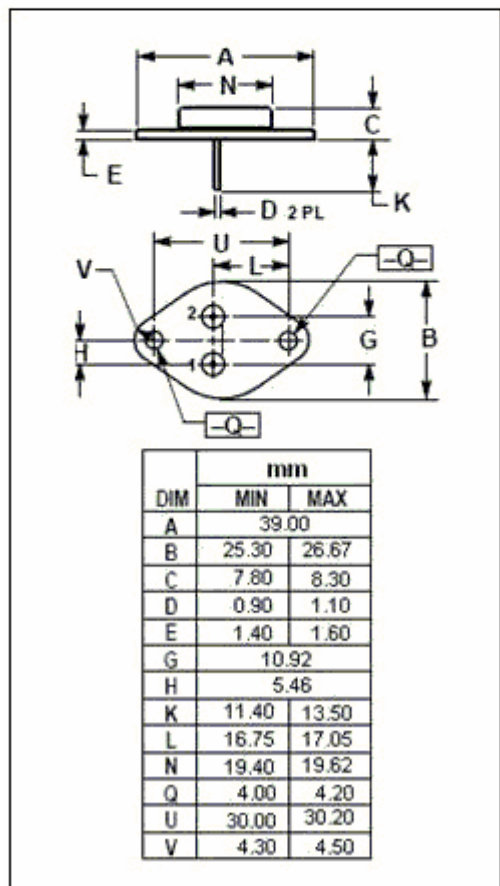
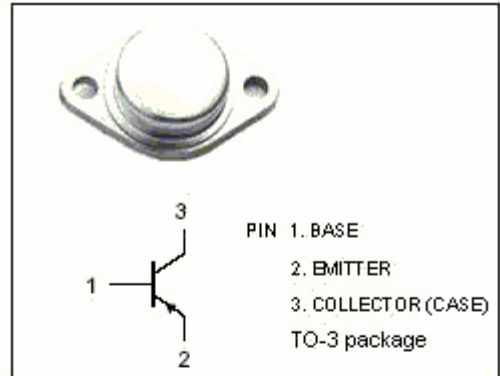
- Designed for general-purpose power amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-10	A
I_{CM}	Collector Current-Peak	-20	A
I_B	Base Current-Continuous	-4	A
P_C	Collector Power Dissipation @ $T_C=100^\circ\text{C}$	50	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	0.5	$^\circ\text{C/W}$



isc Silicon PNP Power Transistors**2N5738****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -200\text{mA}$; $I_B = 0$	-100		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}$; $I_B = -0.5\text{A}$		-0.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}$; $I_B = -2.5\text{A}$		-3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}$; $I_B = -0.5\text{A}$		-1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -4\text{A}$; $V_{CE} = -4\text{V}$		-1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = -100\text{V}$; $I_B = 0$		-0.5	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}$; $I_E = 0$		-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$		-0.1	mA
h_{FE-1}	DC Current Gain	$I_C = -5\text{A}$; $V_{CE} = -5\text{V}$	20	80	
h_{FE-2}	DC Current Gain	$I_C = -10\text{A}$; $V_{CE} = -5\text{V}$	4		
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}$; $V_{CE} = -10\text{V}$	10		MHz