

SPTECH Silicon PNP Power Transistor

MJ4502

DESCRIPTION

- High DC Current Gain-
: $h_{FE} = 25-100 @ I_C = -7.5A$
- Excellent Safe Operating Area
- Complement to the NPN MJ802

APPLICATIONS

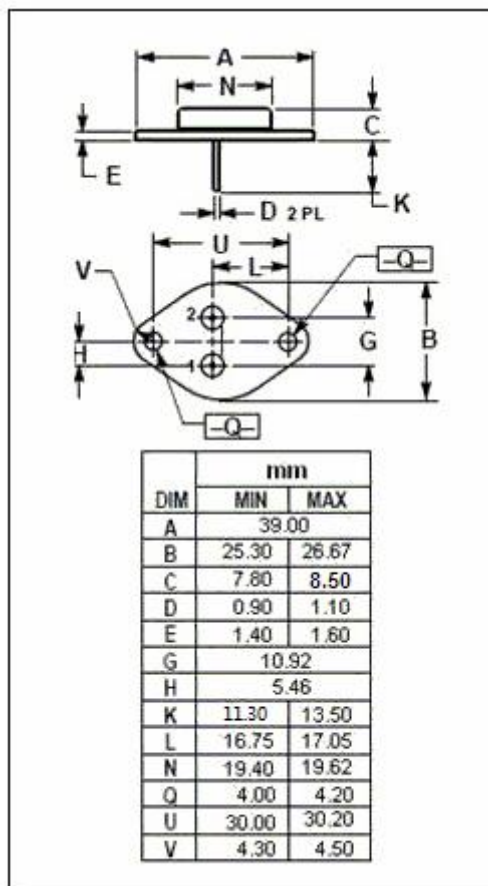
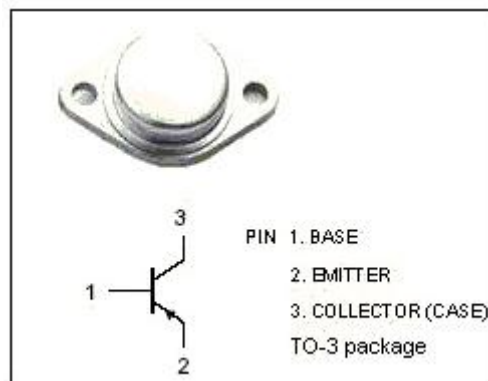
- Designed for use as an output device in complementary audio amplifiers to 100-Watts music power per channel.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-90	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current-Continuous	-30	A
I_B	Base Current-Continuous	-7.5	A
P_C	Collector Power Dissipation@ $T_c=25^{\circ}C$	200	W
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.875	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -50\text{mA}$; $I_B = 0$	-90			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -7.5\text{A}$; $I_B = -0.75\text{A}$			-0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -7.5\text{A}$; $I_B = -0.75\text{A}$			-1.3	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -7.5\text{A}$; $V_{CE} = -2\text{V}$			-1.3	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}$; $I_E = 0$, $T_C = 150^{\circ}\text{C}$			-1.0	mA
I_{EBO}	Emitter Cutoff current	$V_{EB} = -4\text{V}$; $I_C = 0$			-1.0	mA
h_{FE}	DC Current Gain	$I_C = -7.5\text{A}$; $V_{CE} = -2\text{V}$	25		100	
f_T	Current-Gain—Bandwidth Product	$I_C = -1\text{A}$; $V_{CE} = -10\text{V}$; $f = 1.0\text{MHz}$	2.0			MHz