

**SPTECH Silicon PNP Power Transistor**

**2SA1301**

**DESCRIPTION**

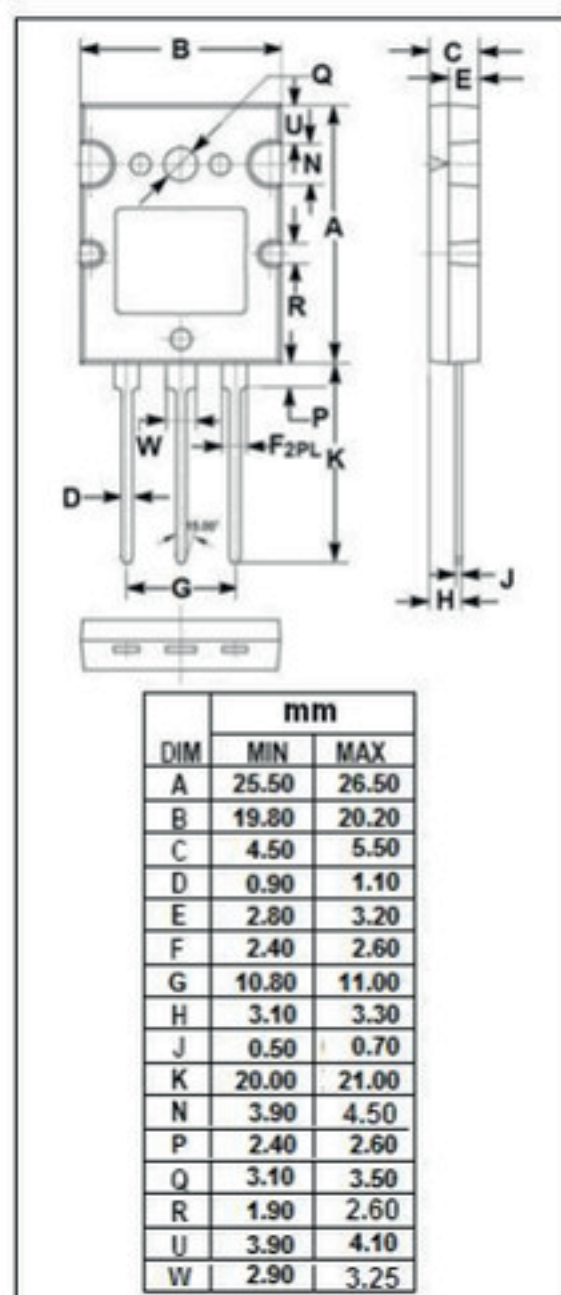
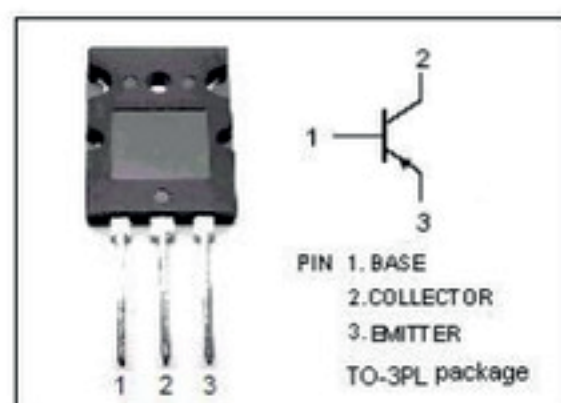
- High Power Dissipation
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -160V(\text{Min})$
- Complement to Type 2SC3280

**APPLICATIONS**

- Power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage applications

**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-160	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-12	A
$I_B$	Base Current-Continuous	-1.2	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	120	W
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-55~150	°C



SPTECH Product Specification

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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	$I_C = -50\text{mA}; I_B = 0$	-160			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -8.0\text{A}; I_B = -0.8\text{A}$			-2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -6\text{A}; V_{CE} = -5\text{V}$			-1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -160\text{V}; I_E = 0$			-5	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-5	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	55		160	
$h_{FE-2}$	DC Current Gain	$I_C = -6\text{A}; V_{CE} = -5\text{V}$	35			
$C_{ob}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$		480		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C = -1\text{A}; V_{CE} = -5\text{V}$		30		MHz

◆  **$h_{FE-1}$  Classifications**

R	O
55-110	80-160