

**isc Silicon NPN Power Transistor**

**2SC3281**

**DESCRIPTION**

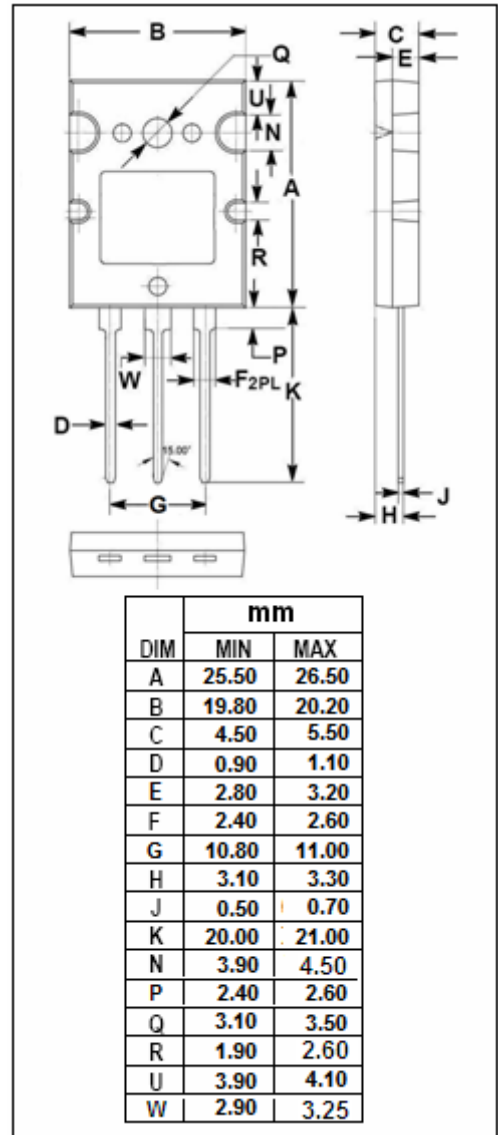
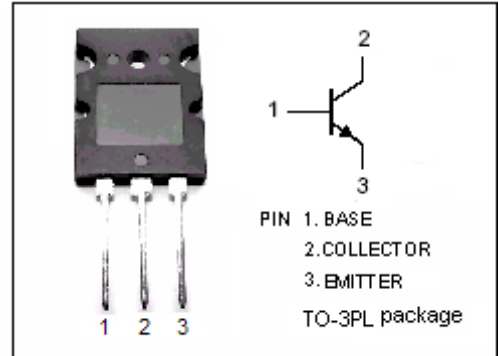
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 200V(\text{Min})$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 3.0V(\text{Max}) @ I_C = 10A, I_B = 1A$
- High Power Dissipation

**APPLICATIONS**

- Power amplifier applications
- Recommend for 100W high fidelity audio frequency amplifier output stage applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	200	V
$V_{CEO}$	Collector-Emitter Voltage	200	V
$V_{EBO}$	Emitter-Base voltage	5	V
$I_C$	Collector Current-Continuous	15	A
$I_B$	Base Current-Continuous	1.5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	150	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SC3281****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	$I_C= 50\text{mA}$ ; $I_B= 0$	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 10\text{A}$ ; $I_B= 1\text{A}$			3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C= 8\text{A}$ ; $V_{CE}= 5\text{V}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 200\text{V}$ ; $I_E=0$			5.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5\text{V}$ ; $I_C=0$			5.0	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C= 1\text{A}$ ; $V_{CE}= 5\text{V}$	55		160	
$h_{FE-2}$	DC Current Gain	$I_C= 8\text{A}$ ; $V_{CE}= 5\text{V}$	35			
$f_T$	Current-Gain—Bandwidth Product	$I_C= 1\text{A}$ ; $V_{CE}= 5\text{V}$		30		MHz
$C_{OB}$	Output Capacitance	$I_E= 0$ ; $V_{CB}= 10\text{V}$ , $f_{test}= 1\text{MHz}$		270		pF

◆  **$h_{FE-1}$  Classifications**

R	O
55-110	80-160