

**isc Silicon PNP Power Transistors**

**2N3741R**

**DESCRIPTION**

- DC Current Gain-  
:  $h_{FE} = 30-100 @ I_C = -250mA$
- Wide Area of Safe Operation
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -0.6 V(Max) @ I_C = -1A$
- High Gain
- Low Saturation Voltage

**APPLICATIONS**

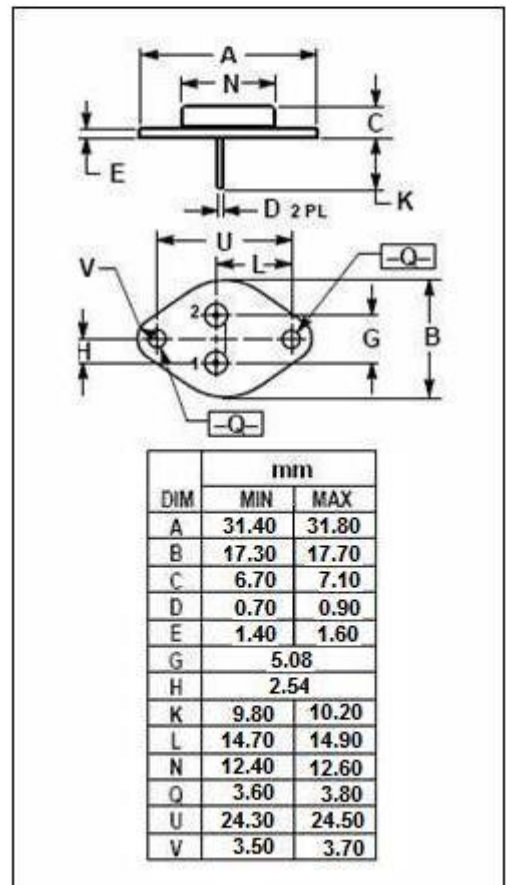
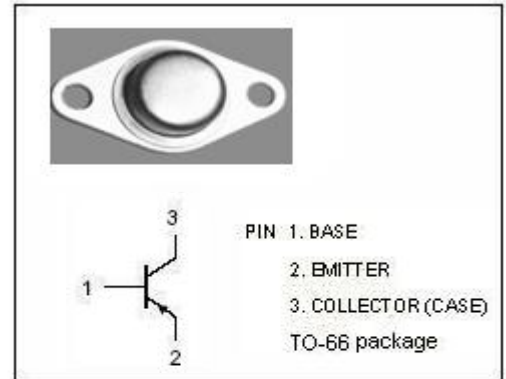
- Designed for use as drivers, switches and medium-power amplifier and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-4	A
$I_{CM}$	Collector Current-Peak	-10	A
$I_B$	Base Current	-2	A
$P_C$	Collector Power Dissipation@ $T_C=25^\circ C$	25	W
$T_{stg}$	Storage Temperature	-65~200	$^\circ C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	7.0	$^\circ C/W$



**isc Silicon PNP Power Transistors****2N3741R****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -50\text{mA}$ ; $I_B = 0$	-80		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}$ ; $I_B = -125\text{mA}$		-0.6	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -250\text{mA}$ ; $V_{CE} = -1\text{V}$		-1.0	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -60\text{V}$ ; $I_B = 0$		-1.0	mA
$I_{CEX}$	Collector Cutoff Current	$V_{CE} = -80\text{V}$ ; $V_{BE(off)} = -1.5\text{V}$ $V_{CE} = -60\text{V}$ ; $V_{BE(off)} = -1.5\text{V}$ , $T_C = 150^\circ\text{C}$		-0.1 -1.0	mA
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{V}$ ; $I_E = 0$		-0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -7\text{V}$ ; $I_C = 0$		-0.5	mA
$h_{FE-1}$	DC Current Gain	$I_C = -100\text{mA}$ ; $V_{CE} = -1\text{V}$	40		
$h_{FE-2}$	DC Current Gain	$I_C = -250\text{mA}$ ; $V_{CE} = -1\text{V}$	30	180	
$h_{FE-3}$	DC Current Gain	$I_C = -500\text{mA}$ ; $V_{CE} = -1\text{V}$	20		
$h_{FE-4}$	DC Current Gain	$I_C = -1\text{A}$ ; $V_{CE} = -1\text{V}$	10		
$C_{OB}$	Output Capacitance	$I_E = 0$ ; $V_{CB} = -10\text{V}$ ; $f_{test} = 0.1\text{MHz}$		100	pF
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.1\text{A}$ ; $V_{CE} = -10\text{V}$ ; $f_{test} = 1.0\text{MHz}$	3		MHz