

**isc Silicon NPN Power Transistor**
**2SD1480**
**DESCRIPTION**

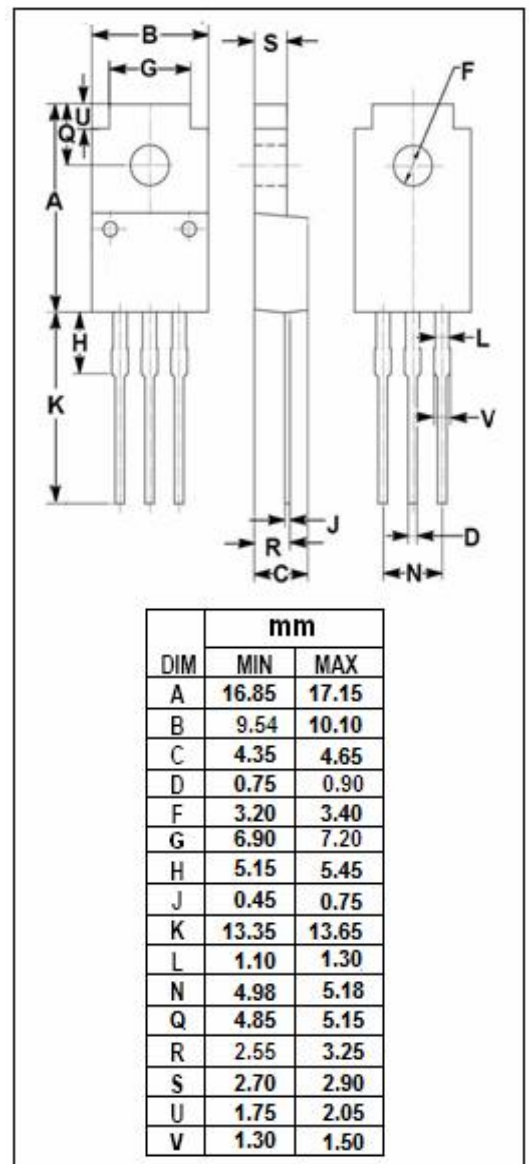
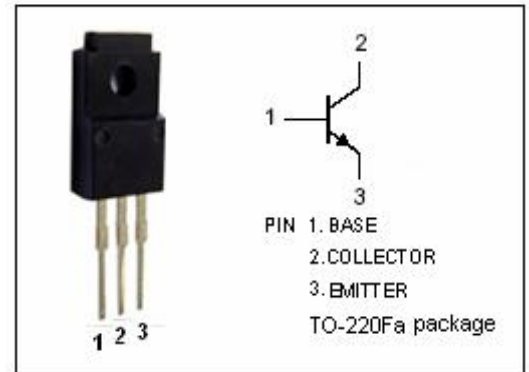
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = 2.0V(\text{Max}) @ I_C = 2A$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 60V (\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SB1052
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	2	A
$I_{CM}$	Collector Current-Peak	4	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	25	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon NPN Power Transistor

2SD1480

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA; I <sub>B</sub> = 0	60			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2A; I <sub>B</sub> = 0.2A			2.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 1A; V <sub>CE</sub> = 4V			1.2	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 60V; V <sub>BE</sub> = 0			200	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> = 0			1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 4V	35			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 4V	70		250	

## Switching times

t <sub>on</sub>	Turn-on Time	I <sub>C</sub> = 1A; I <sub>B1</sub> = I <sub>B2</sub> = 0.1A		0.2		μs
t <sub>stg</sub>	Storage Time			3.5		μs
t <sub>f</sub>	Fall Time			0.7		μs

◆ h<sub>FE-1</sub> classifications

Q	P
70-150	120-250

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