

**isc Silicon NPN Power Transistor**
**BD354**
**DESCRIPTION**

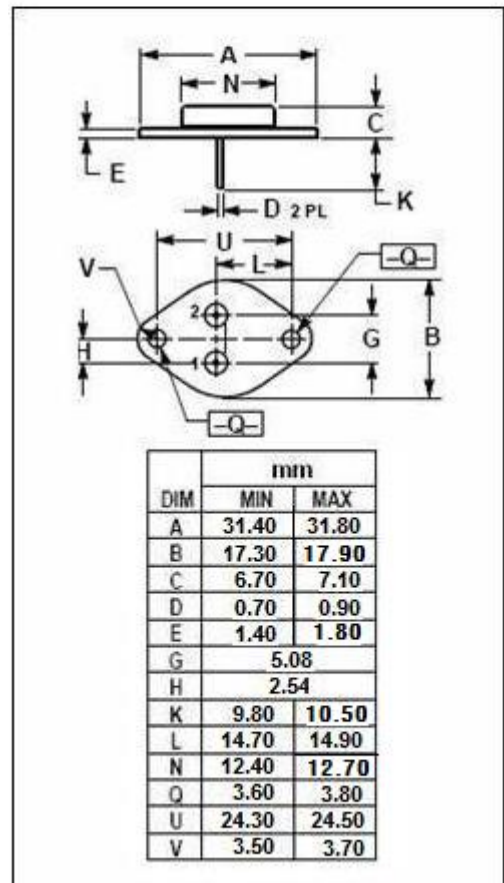
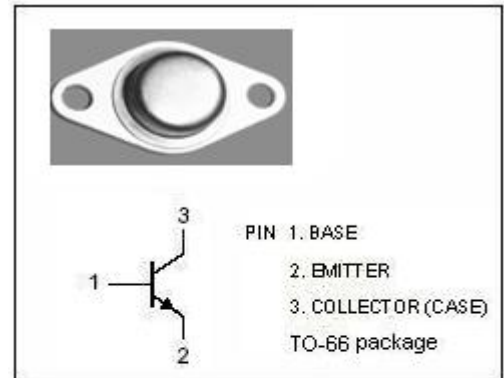
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 60V(\text{Min})$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(\text{sat})} = 1.0V(\text{Max}) @ I_C = 2A$
- Excellent Safe Operating Area
- Complement to Type BD355
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

**APPLICATIONS**

- Designed for general purpose switching and 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	5	V
$I_C$	Collector Current-Continuous	2	A
$I_{CM}$	Collector Current-Peak	4	A
$I_B$	Base Current	1	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	25	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$



## isc Silicon NPN Power Transistors

BD354

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=30\text{mA}; I_B=0$	60		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=1\text{mA}; I_E=0$	60		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	5		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=0.5\text{A}; I_B=50\text{mA}$		0.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$		1.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C=0.5\text{A}; I_B=50\text{mA}$		1.0	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.2\text{A}$		1.5	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=60\text{V}; I_B=0$		0.2	mA
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=60\text{V}; I_E=0$		0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$		0.1	mA
$h_{FE-1}$	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=4\text{V}$	30	150	
$h_{FE-2}$	DC Current Gain	$I_C=2\text{A}; V_{CE}=4\text{V}$	5		
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=10\text{V}, f_{test}=1.0\text{MHz}$	30		MHz

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