

**isc Silicon NPN Power Transistor**

**2SD1352**

**DESCRIPTION**

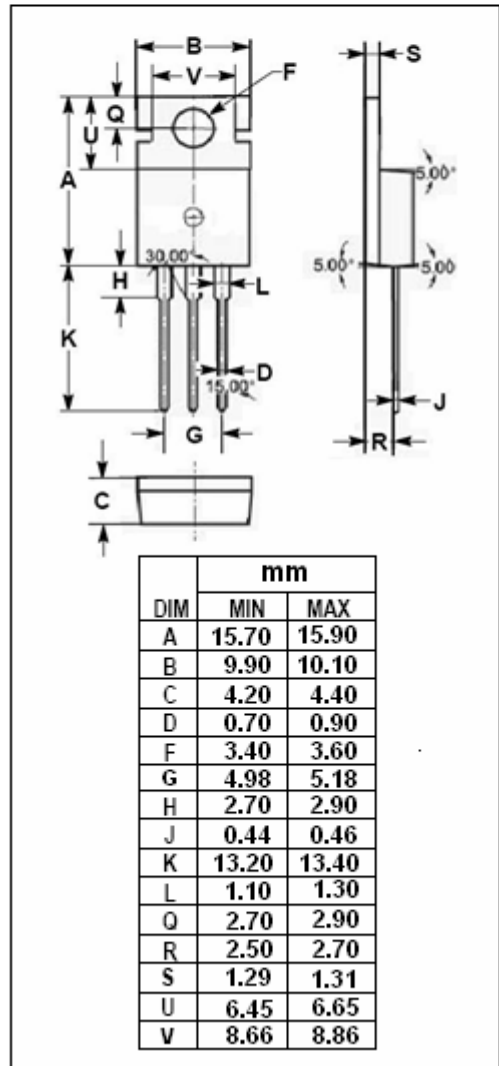
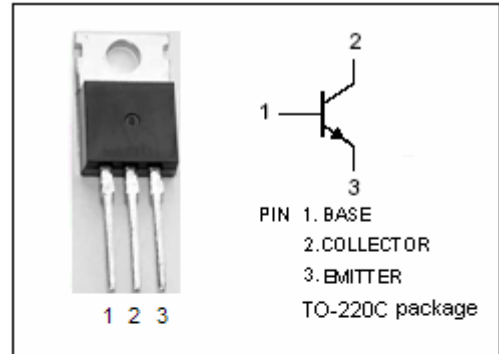
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 80(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SB989

**APPLICATIONS**

- Designed for general purpose application

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	80	V
$V_{CEO}$	Collector-Emitter Voltage	80	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	4	A
$I_E$	Emitter Current-Continuous	-4	A
$I_B$	Base Current-Continuous	0.4	A
$P_C$	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	30	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SD1352****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	$I_C=50\text{mA}; I_B=0$	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.3\text{A}$		0.45	1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=3\text{A}; V_{CE}=5\text{V}$		1.0	1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=80\text{V}; I_E=0$			30	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			0.1	mA
$h_{FE-1}$	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	40		240	
$h_{FE-2}$	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	15	50		
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		90		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	3	8		MHz

◆  **$h_{FE-1}$  Classifications**

R	O	Y
40-80	70-140	120-240