

isc Silicon NPN Power Transistor

2SD1499

DESCRIPTION

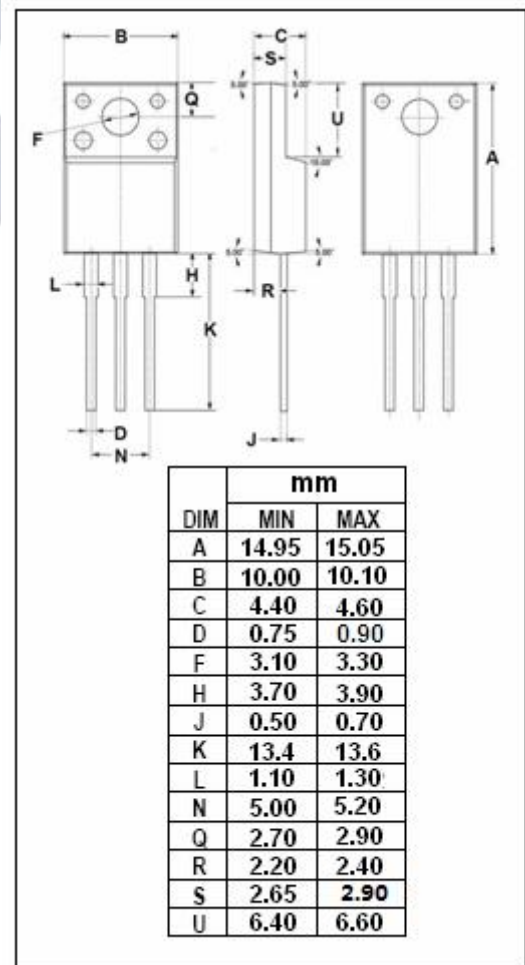
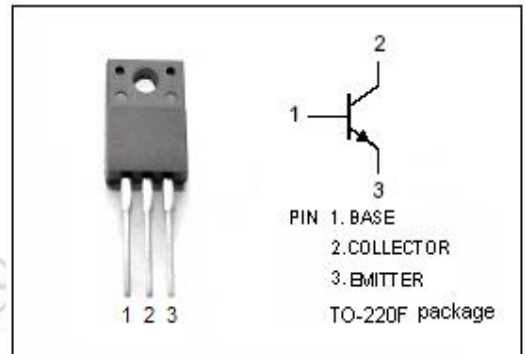
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 100V$ (Min)
- Wide Area of Safe Operation
- Complement to Type 2SB1063
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power amplifications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}C$	40	W
	Collector Power Dissipation @ $T_a=25^{\circ}C$	2	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SD1499****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	$I_C=10\text{mA}; I_B=0$	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.3\text{A}$			2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=3\text{A}; V_{CE}=5\text{V}$			1.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=100\text{V}; I_E=0$			50	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=3\text{V}; I_C=0$			50	μA
h_{FE-1}	DC Current Gain	$I_C=20\text{mA}; V_{CE}=5\text{V}$	20			
h_{FE-2}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	60		200	
h_{FE-3}	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	20			
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=5\text{V}; f_{test}=1.0\text{MHz}$		20		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1.0\text{MHz}$		90		pF

◆ **h_{FE-2} classifications**

Q	P
60-120	100-200

