

isc Silicon NPN Power Transistor

2SD299

DESCRIPTION

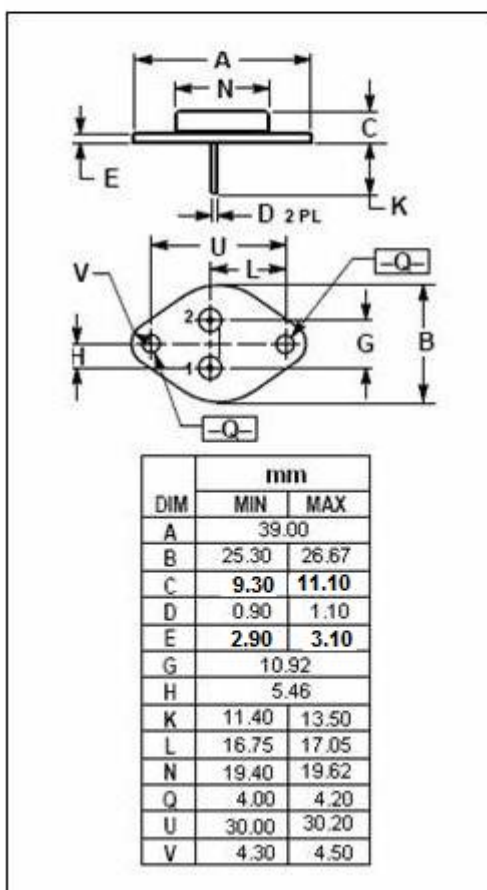
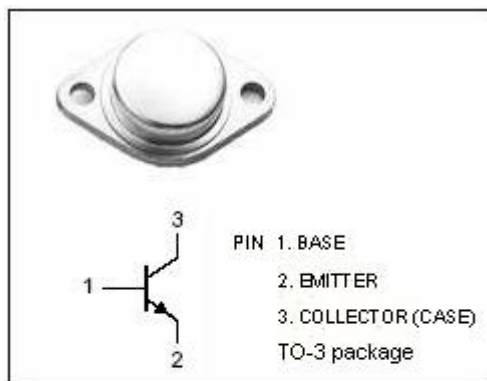
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.0V$ (Max.) @ $I_C = 4.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in large screen color deflection circuits .

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5.0	A
I_{CM}	Collector Current-Peak	8.0	A
I_B	Base Current-Continuous	2.5	A
P_C	Collector Power Dissipation @ $T_C = 90^\circ C$	16	W
T_J	Junction Temperature	115	$^\circ C$
T_{stg}	Storage Temperature	-65~115	$^\circ C$



isc Silicon NPN Power Transistor**2SD299****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4.5\text{A}; I_B = 2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 4.5\text{A}; I_B = 2\text{A}$			1.6	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 1500\text{V}; I_E = 0$			1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$			0.1	mA
h_{FE-1}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	10		30	
h_{FE-1}	DC Current Gain	$I_C = 4\text{A}; V_{CE} = 5\text{V}$	2			
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}; f_{test} = 1.0\text{MHz}$		165		pF
f_T	Current-Gain—Bandwidth Product	$I_C = 0.1\text{A}; V_{CE} = 10\text{V}$		3		MHz
t_f	Fall Time	$I_C = 4.5\text{A}, I_{Bend} = 2\text{A}$			1.0	μs

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