

isc Silicon NPN Darlington Power Transistor**2SD799****DESCRIPTION**

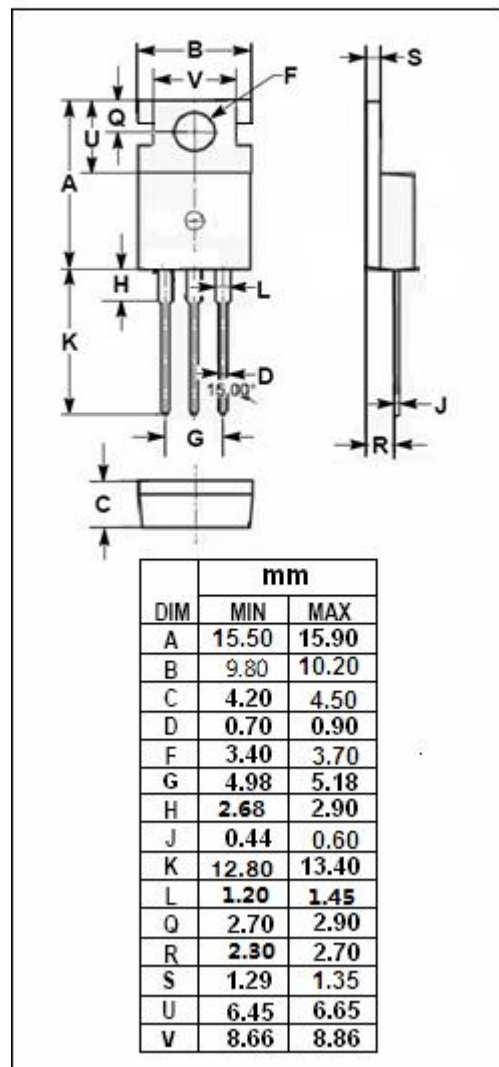
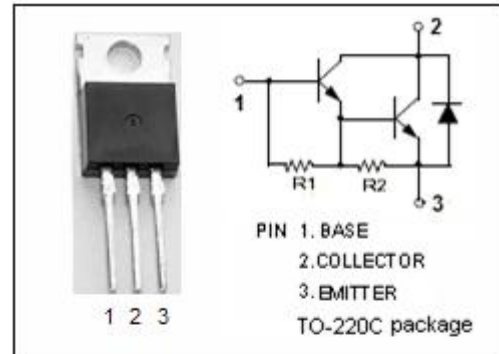
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 400V$ (Min.)
- High DC Current Gain
: $h_{FE} = 600$ (Min.) @ $I_C = 2A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Igniter applications.
- High voltage switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	600	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	30	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Darlington Power Transistor**2SD799****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 40mA			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 40mA			2.5	V
V _{ECF}	C-E Diode Forward Voltage	I _F = 4A			3.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 600V; I _E = 0			0.5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			3.0	mA
h _{FE-1}	DC Current Gain	I _C = 2A ; V _{CE} = 2V	600			
h _{FE-2}	DC Current Gain	I _C = 4A ; V _{CE} = 2V	100			
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 50V;f= 1.0MHz		35		pF

Switching times

t _{on}	Turn-on Time	I _{B1} = I _{B2} = 40mA; R _L = 25 Ω ; V _{CC} = 100V; P _W = 20 μ s, Duty Cycle ≤ 1%		1		μ s
t _{stg}	Storage Time			8		μ s
t _f	Fall Time			5		μ s

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