

isc Silicon NPN Darlington Power Transistor

2SD706

DESCRIPTION

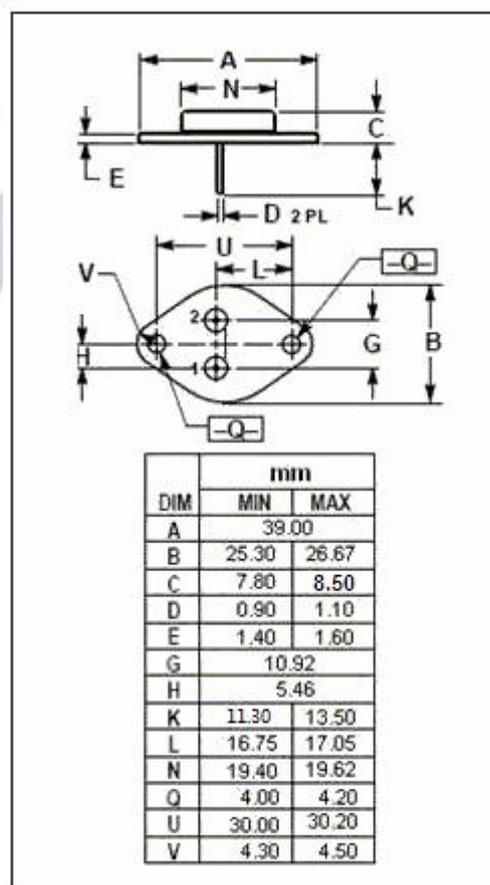
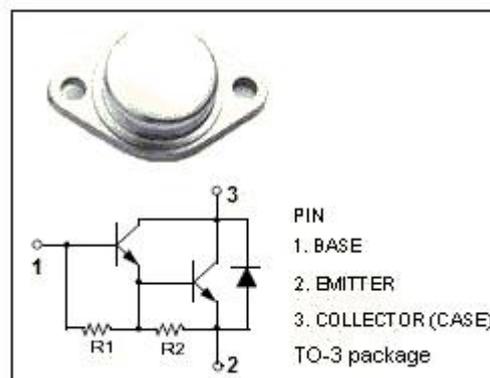
- Low Collector Saturation Voltage
- High DC Current Gain
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High ruggedness electronic ignitions
- High voltage ignition coil driver
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	345	V
V_{CEO}	Collector-Emitter Voltage	345	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current	6	A
I_B	Base Current	1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	80	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD706****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 40mA			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 40mA			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} =345V; I _E =0			0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 345V; I _B = 0			0.5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 10V; I _C = 0			20	mA
h _{FE}	DC Current Gain	I _C = 4A; V _{CE} = 1.5V	1000			

Switching times

t _{on}	Turn-on Time	I _C = 4A, I _{B1} = I _{B2} = 40mA			1.0	μs
t _{stg}	Storage Time				8.0	μs
t _f	Fall Time				5.0	μs