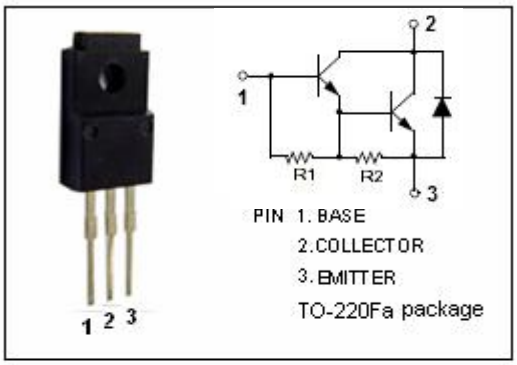
isc Silicon NPN Darlington Power Transistor 2SD1409A

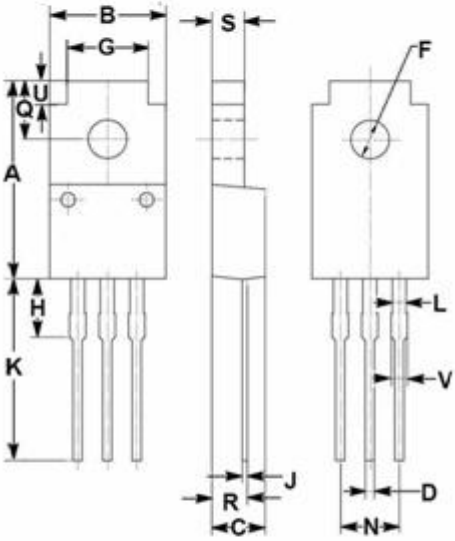


DESCRIPTION

- High collector-emitter breakdown voltage-
  : $V_{(BR)CEO}$= 400V(Min)
- High DC current Gain
  : h_{FE}= 600(Min) @ I_C= 2A, V_{CE}= 2V
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Igniter applications
- High voltage switching applications



DIM	mm MIN	mm MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	3.80	4.20
J	0.45	0.75
K	13.35	13.80
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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_a=25℃	2	W
	Collector Power Dissipation @ T_C=25℃	25	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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			