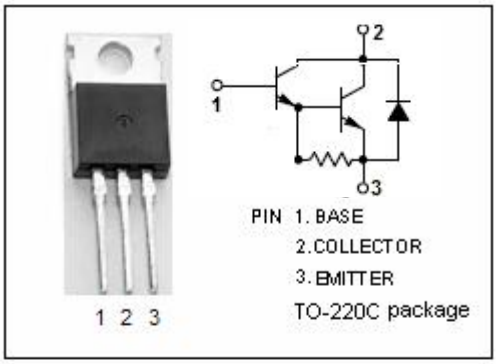
isc Silicon NPN Darlington Power Transistor 2SD836



DESCRIPTION

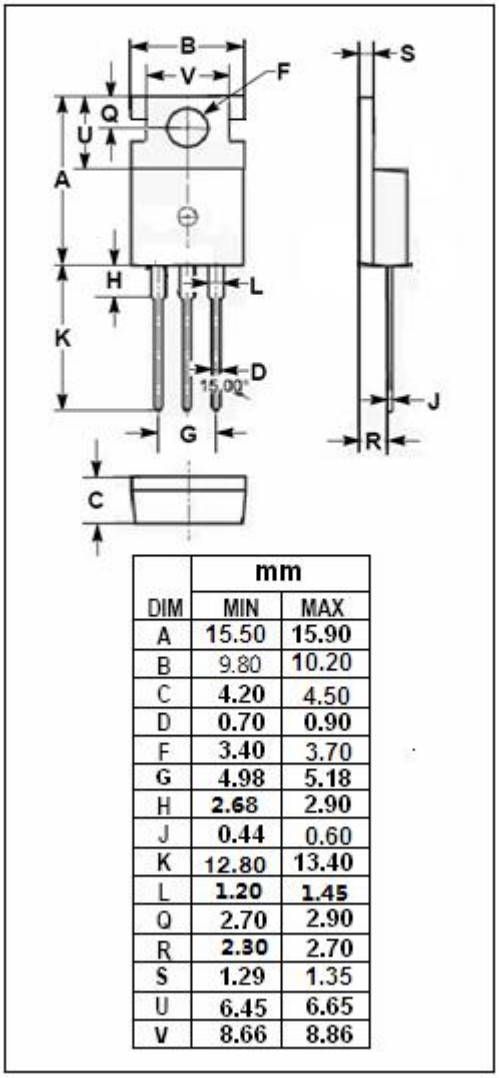
- High DC Current Gain-
  : h_{FE}= 1000(Min.)@I_C= 2A
- High Switching Speed
- Complement to Type 2SB750
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- AF power amplifiers
- General purpose power amplifiers

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Base Current-Peak	4	A
P_C	Collector Power Dissipation @ T_C=25℃	35	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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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= 30mA ; I_B= 0	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 8mA			2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 2A ; V_{CE}= 4V			2.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 60V; I_E= 0			0.2	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 30V; I_B= 0			0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C=0			2	mA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 4V	1000			
h_{FE-2}	DC Current Gain	I_C= 2A ; V_{CE}= 4V	1000		10000	
Switching Times						
t_{on}	Turn-On Time	I_C= 2A; I_{B1}=I_{B2}= 8mA		0.4		μs
t_{off}	Turn-Off Time			4		μs

◆ **h_{FE-2}Classifications**

R	Q	P
1000-2500	2000-5000	4000-10000

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