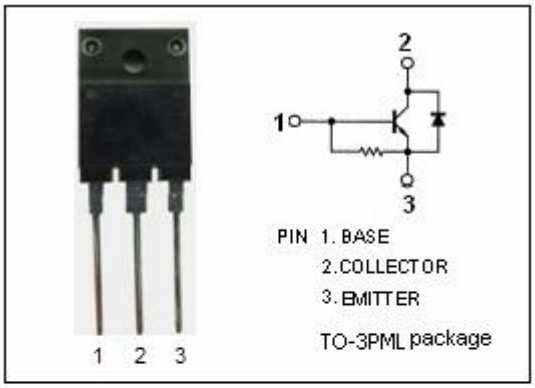
isc Silicon NPN Power Transistor — 2SD1650



DESCRIPTION

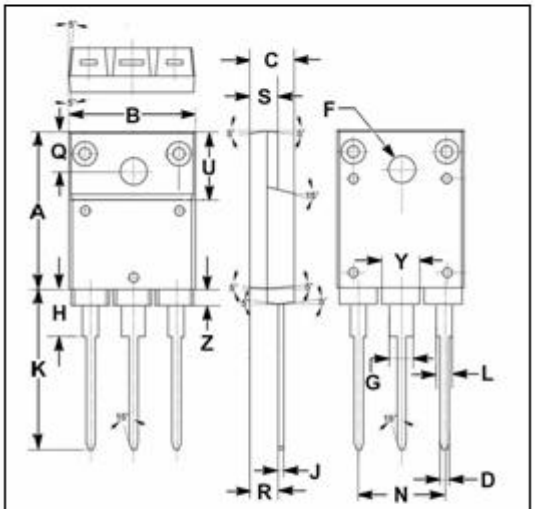
- High Breakdown Voltage-
  : V_{CBO}= 1500V (Min)
- High Switching Speed
- High Reliability
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal output applicaitions

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	3.5	A
I_{CP}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10

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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; R_{BE}= ∞	800			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=1mA; I_E= 0	1500			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 200mA; I_C= 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.4A			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 0.4A			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 800V ; I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V ; I_C= 0	40		130	mA
h_{FE}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	8		30	
V_{ECF}	C-E Diode Forward Voltage	I_F= 2.0A			2.0	V
t_f	Fall Time	I_C= 3A , I_{B1}= 0.8A ; I_{B2}= 1.6A R_L= 66.7Ω ; V_{CC}= 200V			0.7	μs