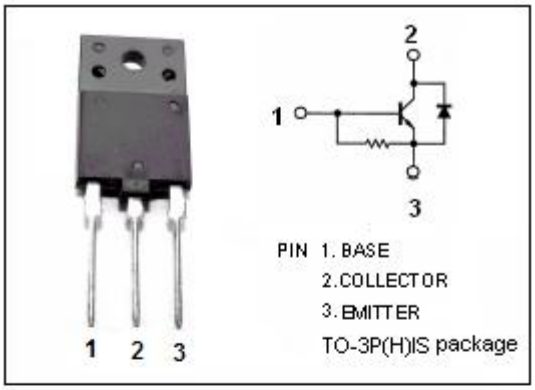
isc Silicon NPN Power Transistor — MD1803DFX

DESCRIPTION

- High Voltage
- Low base-drive requirements
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 700V (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

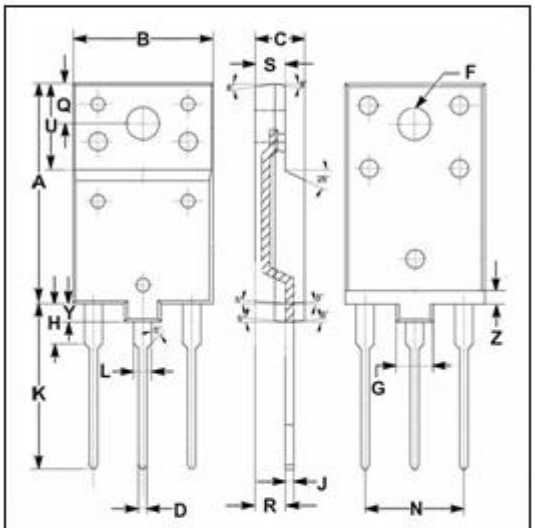
- Horizontal deflection output for TV

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current- Continuous	10	A
I_{CM}	Collector peak current (tp<5ms)	15	A
I_B	Base Current- Continuous	5	A
P_{TOT}	Total dissipation at T_C=25℃	57	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.2	℃/W



DIM	mm MIN	mm MAX
A	24.30	24.70
B	15.20	15.80
C	5.20	5.80
D	0.65	0.85
F	3.30	3.90
G	3.90	4.10
H	4.30	4.70
J	0.80	1.00
K	18.30	18.70
L	1.90	2.10
N	10.70	11.10
Q	4.40	4.60
R	3.30	3.70
S	3.20	3.40
U	9.50	9.70
Y	1.90	2.10
Z	1.40	1.60

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Eollector-base breakdown Voltage	I_C= 200mA; I_C= 0	10			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5.0A; I_B=1.25A			2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5.0A; I_B=1.25A			1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 1500V ; I_E= 0 V_{CB}= 1500V ; I_E= 0 ,TC=125			0.2 2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V ; I_C= 0	40		120	mA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 5V		18		
h_{FE-2}	DC Current Gain	I_C= 5A ; V_{CE}= 1V		5		
h_{FE-3}	DC Current Gain	I_C= 5A ; V_{CE}= 5V	5.5			