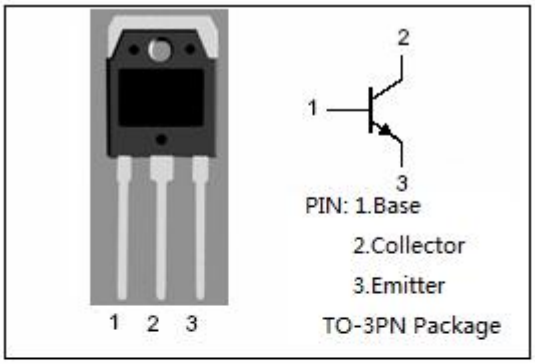
isc Silicon NPN Power Transistor — UM8168L

DESCRIPTION

- High Voltage: V_{CBO}= 330V(Min)
- Fast Switching Speed-
  : t_f= 750ns(Max)
- Low Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max)@ I_C= 5A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

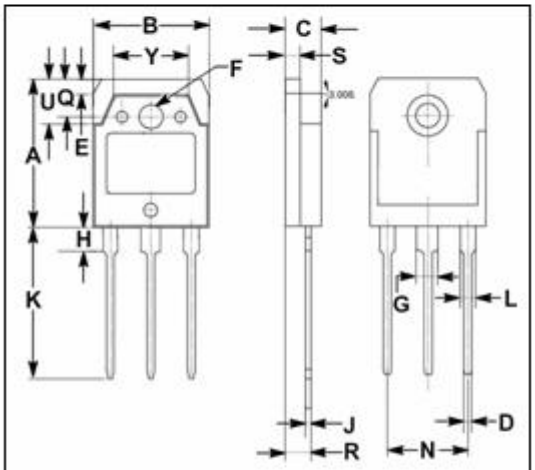
- Designed for use in horizontal deflection output stages of TV's and CRT's

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	330	V
V_{CEV}	Collector-Emitter Voltage	330	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CP}	Collector Current-Peak Repetitive	10	A
I_{CP}	Collector Current- Peak (10ms)	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation @ T_C=25℃	60	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	2.08	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	70	℃/W



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA ;I_B= 0	140			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 330V; I_E=0 V_{CB}=330V; I_E=0;T_C= 150℃			0.1 1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0			1.0	mA
h_{FE-1}	DC Current Gain	I_C= 10mA ; V_{CE}= 10V	48			
h_{FE-2}	DC Current Gain	I_C= 0.5A ; V_{CE}= 10V	73		230	
h_{FE-3}	DC Current Gain	I_C= 2A ; V_{CE}= 10V	88		230	
h_{FE-4}	DC Current Gain	I_C= 7A ; V_{CE}= 10V	22			