

**isc Silicon NPN Power Transistor**

**ISCM18120**

**DESCRIPTION**

- Continuous Collector Current :  $I_C = 1.5A$
- Power Dissipation:  $P_D = 10W @ T_C = 25^\circ C$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 1.5 V(\text{Max}) @ I_C = 0.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

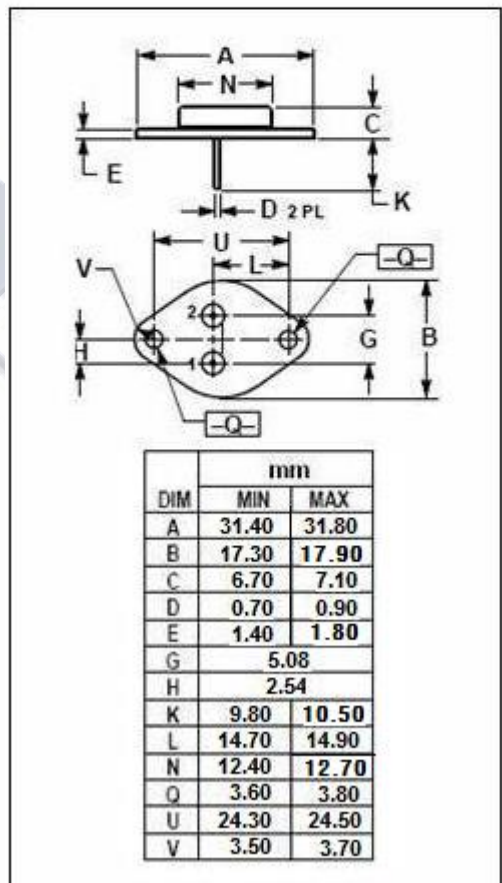
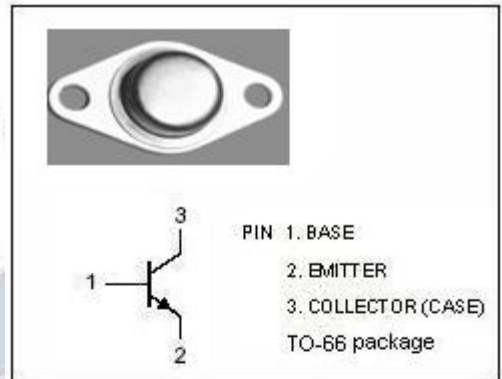
- Designed for high-speed switching and linear amplifier Applications.

**ABSOLUTE MAXIMUM RATINGS( $T_a = 25^\circ C$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	300	V
$V_{CEO}$	Collector-Emitter Voltage	250	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	1.5	A
$I_{CM}$	Collector Current-Peak	6.0	A
$P_C$	Collector Power Dissipation@ $T_C = 25^\circ C$	10	W
$T_J$	Junction Temperature	175	$^\circ C$
$T_{stg}$	Storage Temperature	-65~175	$^\circ C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	15	$^\circ C/W$



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**ELECTRICAL CHARACTERISTICS**

 T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 0.2A ; I <sub>B</sub> = 0	250		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 0.5A ; I <sub>B</sub> = 0.05A		1.5	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 0.5A ; V <sub>CE</sub> = 5V		2	V
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 250V ; I <sub>B</sub> = 0		0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6V ; I <sub>C</sub> =0		0.1	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 0.1A ; V <sub>CE</sub> = 5V	50		