

isc Silicon NPN Power Transistor

ISCM18128

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain- $h_{FE}=20-100@I_C = 4A$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)}= 1.1 V(Max)@ I_C = 4A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

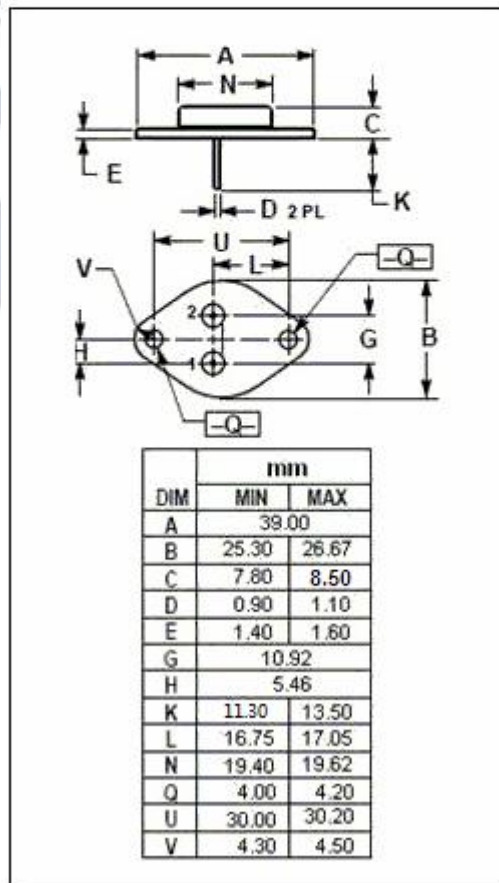
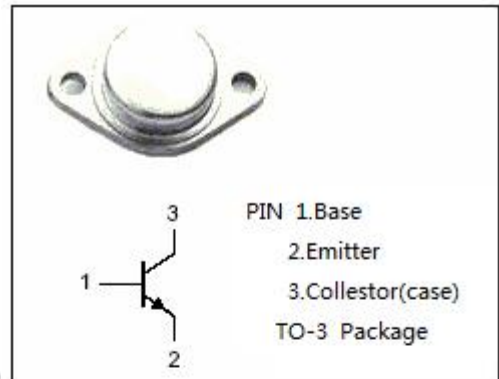
- Designed for general-purpose switching and amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current	7	A
P_C	Collector Power Dissipation@ $T_c=25^{\circ}C$	120	W
T_J, T_{stg}	Operating and Storage Junction Temperature Range	-65~+150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.04	$^{\circ}C/W$



isc Silicon NPN Power Transistors**ISCM18128****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}$; $I_B=0$	200		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 4\text{A}$; $I_B= 0.4\text{A}$		1.1	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 10\text{A}$; $I_B= 3.3\text{A}$		3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C= 4\text{A}$; $V_{CE}= 4\text{V}$		1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}= 30\text{V}$; $I_B=0$		0.7	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 7.0\text{V}$; $I_C=0$		5.0	mA
h_{FE-1}	DC Current Gain	$I_C= 4\text{A}$; $V_{CE}= 4\text{V}$	20	100	
h_{FE-2}	DC Current Gain	$I_C= 10\text{A}$; $V_{CE}= 4\text{V}$	5.0		