

**isc Silicon NPN Power Transistor****2SD218****DESCRIPTION**

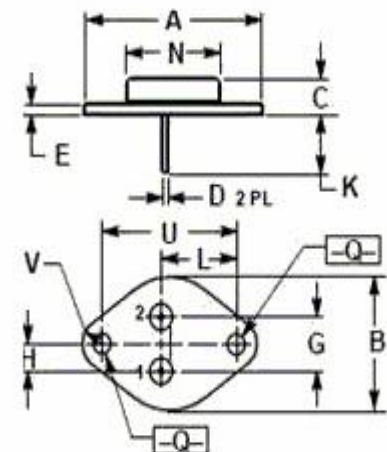
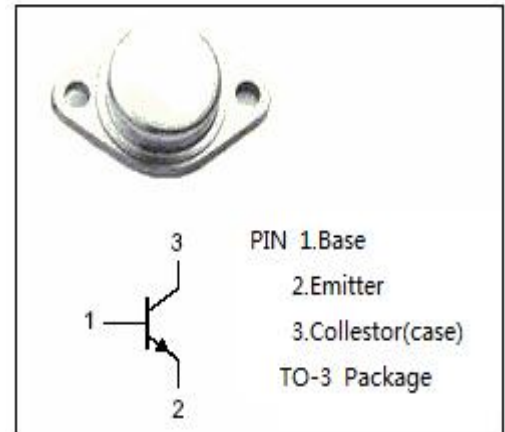
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 150V$  (Min)
- Low Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 1.5V$  (Max.) @  $I_C = 7A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Low saturation voltage
- Excellent current gain linearity

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

SYMBOL	PARAMETER	MAX	UNIT
$V_{CBO}$	Collector-Base Voltage	150	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	7	A
$I_B$	Base Current-Continuous	2	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	60	W
$T_j$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$



DIM	mm	
	MIN	MAX
A		39.00
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G		10.92
H		5.46
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

**isc Silicon NPN Power Transistor****2SD218****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 7A; I <sub>B</sub> = 0.7A		0.6	1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 7A; I <sub>B</sub> = 0.7A		1.2	1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 80V; I <sub>E</sub> = 0			0.5	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			0.5	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 4A; V <sub>CE</sub> = 5V	30	60	120	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 7A; V <sub>CE</sub> = 5V	20	40		
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.2A; V <sub>CE</sub> = 10V		10		MHz

**◆ h<sub>FE-1</sub> Classifications**

M	L	K
30-60	45-90	60-120

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