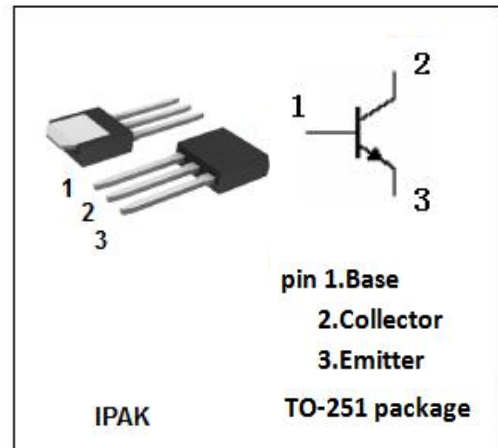


isc Silicon NPN Power Transistor
2SC3518
DESCRIPTION

- Low collector saturation voltage
- High DC current gain
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

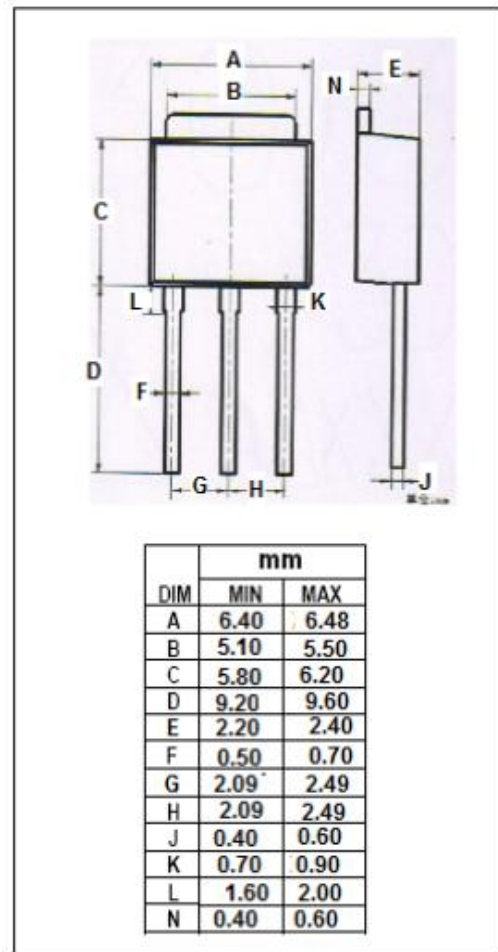
- This transistor is ideal for audio frequency amplifier and switching especially in hybrid integrated circuits


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak ^{NOTE1}	7	A
P_C	Collector Power Dissipation @ $T_a=25^{\circ}\text{C}$ ^{NOTE2}	2	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

NOTE1:PW \leq 300ms,Duty cycle \leq 10%

NOTE2:Printing boarding mounted



isc Silicon NPN Power Transistor

2SC3518

ELECTRICAL CHARACTERISTICS

 $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$ ^{NOTE}	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=200\text{mA}$			0.3	V
$V_{BE(sat)}$ ^{NOTE}	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=200\text{mA}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=50\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			10	μA
h_{FE-1} ^{NOTE}	DC Current Gain	$I_C=5\text{A}; V_{CE}=1\text{V}$	50			
h_{FE-2} ^{NOTE}	DC Current Gain	$I_C=2\text{A}; V_{CE}=1\text{V}$	100		400	
f_T ^{NOTE}	Current-Gain—Bandwidth Product	$I_C=500\text{mA}; V_{CE}=10\text{V}$		120		MHz

NOTE: Pulse test $PW \leq 350\mu\text{s}$, duty cycle $\leq 2\%$ /pulse◆ h_{FE-2} Classifications

M	L	K
100-200	160-320	200-400

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