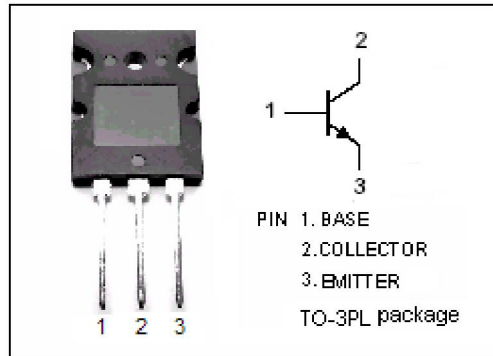


isc Silicon NPN Power Transistor

2SC3714

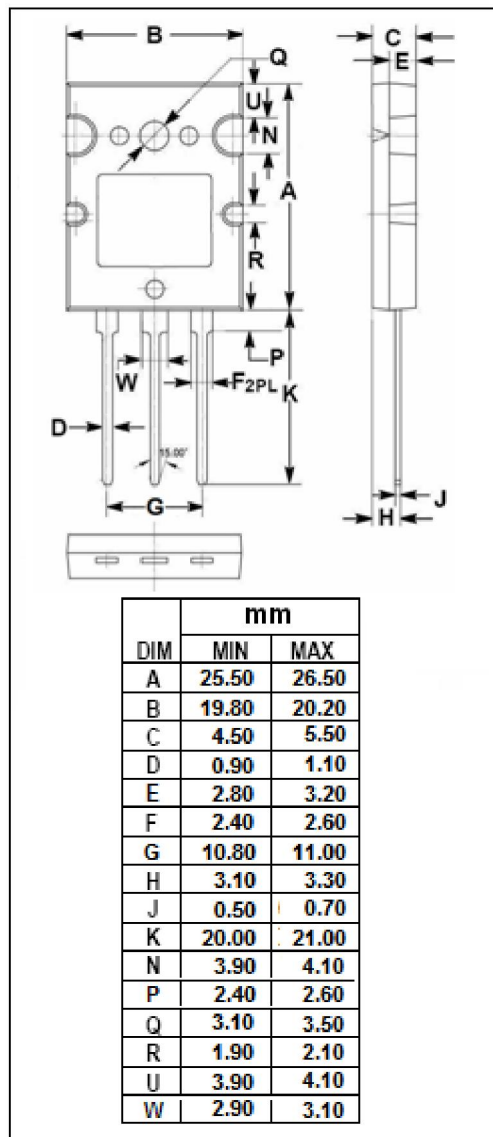
DESCRIPTION

- High Switching Speed
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 400V(\text{Min})$



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	20	A
I_{CM}	Collector Current-Pulse	40	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	200	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SC3714****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=2\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=500\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}; I_C=0$			0.1	mA
h_{FE-1}	DC Current Gain	$I_C=10\text{A}; V_{CE}=2\text{V}$	10		40	
f_T	Current-Gain—Bandwidth Product	$I_C=2\text{A}; V_{CE}=10\text{V}$	20			MHZ

Switching times

t_{on}	Turn-on Time	$I_C=10\text{A}, I_{B1}=-I_{B2}=2\text{A}$ $R_L=15\Omega; V_{CC}=150\text{V}, V_{BB2}=4\text{V}$			0.5	μs
t_{stg}	Storage Time				2.0	μs
t_f	Fall Time				0.3	μs