

isc Silicon NPN Power Transistors

2SC3519/A

DESCRIPTION

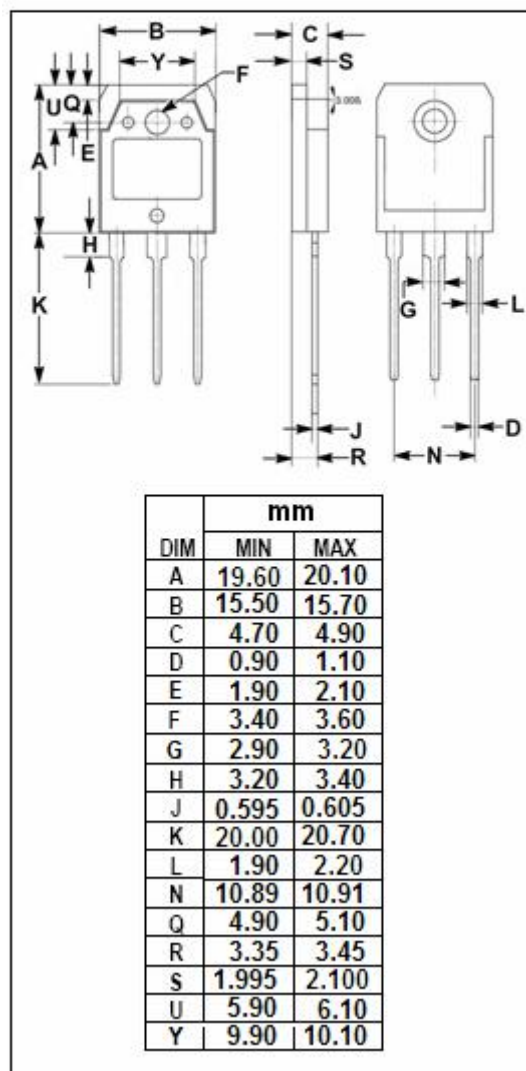
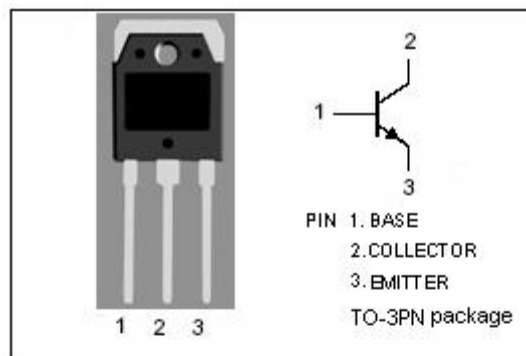
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = 160V(\text{Min})$ -2SC3519
 $= 180V(\text{Min})$ -2SC3519A
- Good Linearity of h_{FE}
- Complement to Type 2SA1386/A

APPLICATIONS

- Designed for audio and general purpose applications

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

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	2SC3519	160	V
		2SC3519A	180	
V_{CEO}	Collector-Emitter Voltage	2SC3519	160	V
		2SC3519A	180	
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current-Continuous		15	A
I_B	Base Current-Continuous		4	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$		130	W
T_J	Junction Temperature		150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range		-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	2SC3519	$I_C = 25\text{mA}; I_B = 0$	160			V
		2SC3519A		180			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		$I_C = 5.0\text{A}; I_B = 0.5\text{A}$			2.0	V
I_{CBO}	Collector Cutoff Current	2SC3519	$V_{CB} = 160\text{V}; I_E = 0$			100	μA
		2SC3519A	$V_{CB} = 180\text{V}; I_E = 0$			100	
I_{EBO}	Emitter Cutoff Current		$V_{EB} = 5\text{V}; I_C = 0$			100	μA
h_{FE}	DC Current Gain		$I_C = 5\text{A}; V_{CE} = 4\text{V}$	50		180	
C_{OB}	Output Capacitance		$I_E = 0; V_{CB} = 10\text{V}; f_{test} = 1.0\text{MHz}$		250		pF
f_T	Current-Gain—Bandwidth Product		$I_E = -2\text{A}; V_{CE} = 12\text{V}$		50		MHz

Switching Times

t_{on}	Turn-on Time	$I_C = 10\text{A}, R_L = 4\Omega,$ $I_{B1} = -I_{B2} = 1\text{A}, V_{CC} = 40\text{V}$		0.2		μs
t_{stg}	Storage Time			1.3		μs
t_f	Fall Time			0.45		μs

◆ h_{FE} Classifications

O	P	Y
50-100	70-140	90-180