

isc Silicon NPN Power Transistors
2SC3519/A
DESCRIPTION

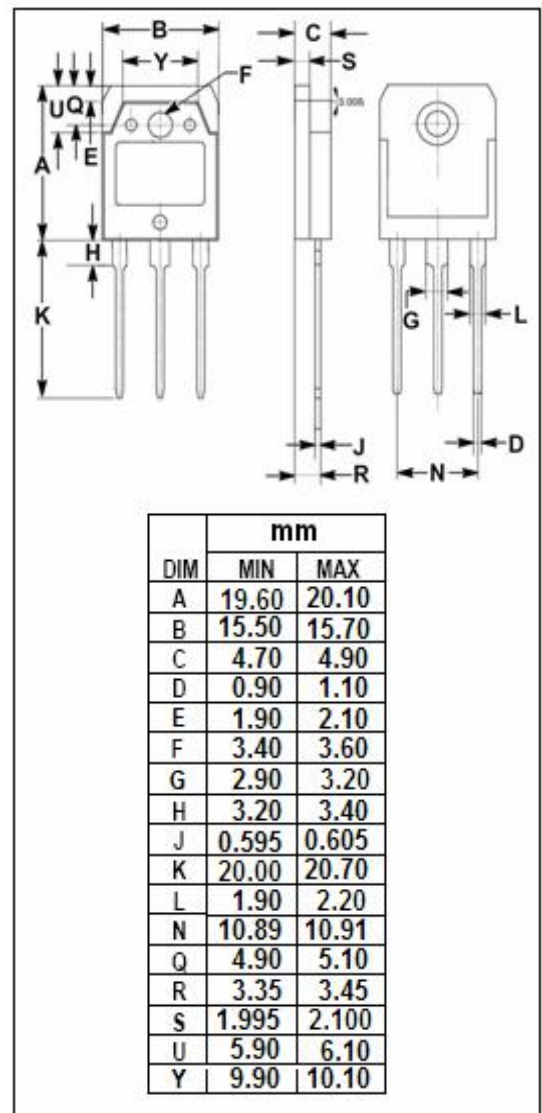
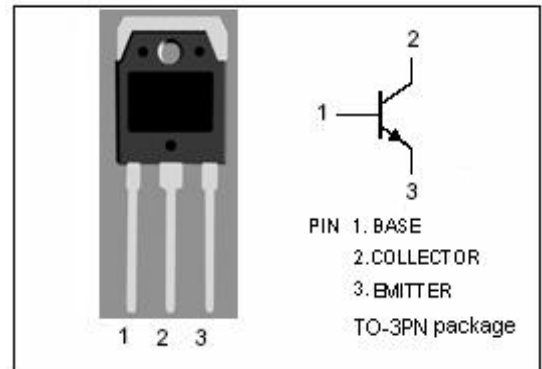
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = 160V(\text{Min})$ -2SC3519
 $= 180V(\text{Min})$ -2SC3519A
- Good Linearity of h_{FE}
- Complement to Type 2SA1386/A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	2SC3519	I _C = 25mA ; I _B = 0	160			V
		2SC3519A		180			
V _{CE(sat)}	Collector-Emitter Saturation Voltage		I _C = 5.0A; I _B = 0.5A			2.0	V
I _{CBO}	Collector Cutoff Current	2SC3519	V _{CB} = 160V; I _E = 0			100	μ A
		2SC3519A	V _{CB} = 180V; I _E = 0			100	
I _{EBO}	Emitter Cutoff Current		V _{EB} = 5V; I _C = 0			100	μ A
h _{FE}	DC Current Gain		I _C = 5A ; V _{CE} = 4V	50		180	
C _{OB}	Output Capacitance		I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		250		pF
f _T	Current-Gain—Bandwidth Product		I _E = -2A ; V _{CE} = 12V		50		MHz

Switching Times

t _{on}	Turn-on Time	I _C = 10A ,R _L = 4 Ω , I _{B1} = -I _{B2} = 1A,V _{CC} = 40V		0.2		μ s
t _{stg}	Storage Time			1.3		μ s
t _f	Fall Time			0.45		μ s

◆ h_{FE} Classifications

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

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