

isc Silicon NPN Power Transistor

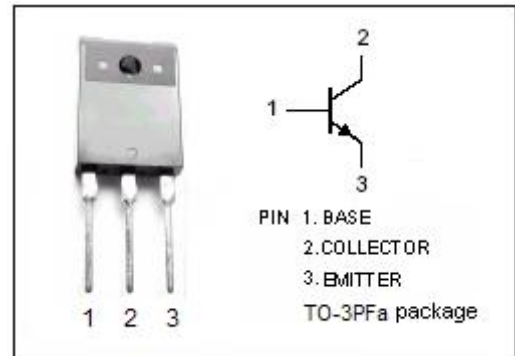
2SC3528

DESCRIPTION

- Low Collector Saturation Voltage
- High Collector Current
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

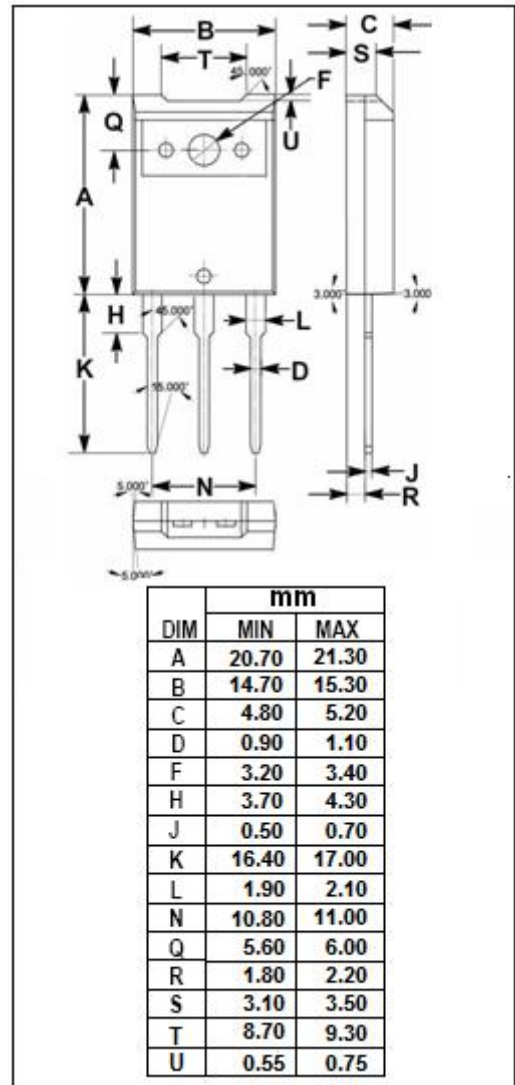
APPLICATIONS

- Designed for switching regulator and high voltage switching applications.



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

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_B	Base Current-Continuous	6	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	125	W
	Collector Power Dissipation @ $T_a=25^{\circ}C$	3	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C =20mA ; I _B =0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 2A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 2A ; V _{CE} = 5V	15			
h _{FE-2}	DC Current Gain	I _C = 10A ; V _{CE} = 5V	10			
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 10V; f= 1MHz		15		MHz

Switching times

t _{on}	Turn-On Time				1.0	μ s
t _{stg}	Storage Time	I _C = 10A; I _{B1} = 2.0A, I _{B2} = -2.0A; V _{CC} = 125V			2.5	μ s
t _f	Fall Time				1.0	μ s

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