

isc Silicon NPN Power Transistor

2SC4275

DESCRIPTION

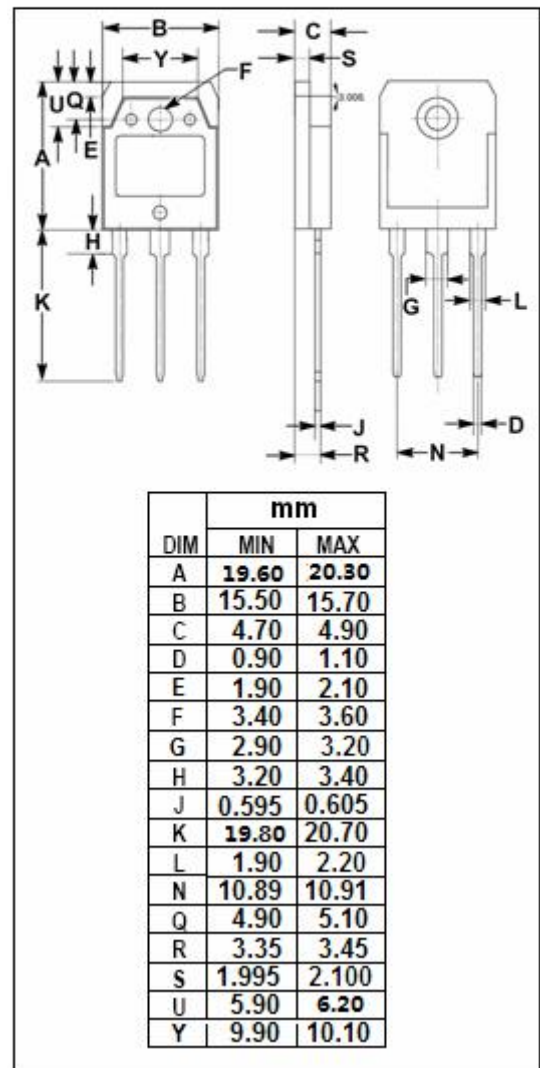
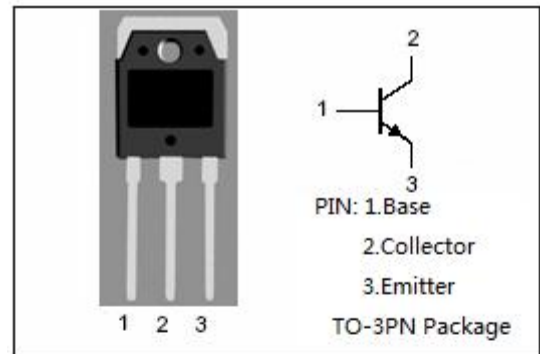
- Low saturation voltage
- High Switching Speed
- High reliability
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching regulators
- High speed DC-DC converter applications
- Solid state relay
- General purpose power amplifiers

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	10	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	80	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



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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	$I_C=200\text{mA}$; $I_B=0$	400			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=1\text{mA}$; $I_E=0$	500			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}$; $I_B=0.8\text{A}$			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4\text{A}$; $I_B=0.8\text{A}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=450\text{V}$; $I_E=0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=10\text{V}$; $I_C=0$			0.1	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=5\text{V}$	25		65	

◆ h_{FE} Classifications

B	C	D
25-40	35-50	45-65

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