

# isc Silicon NPN Power Transistor

## 2SC4275

### DESCRIPTION

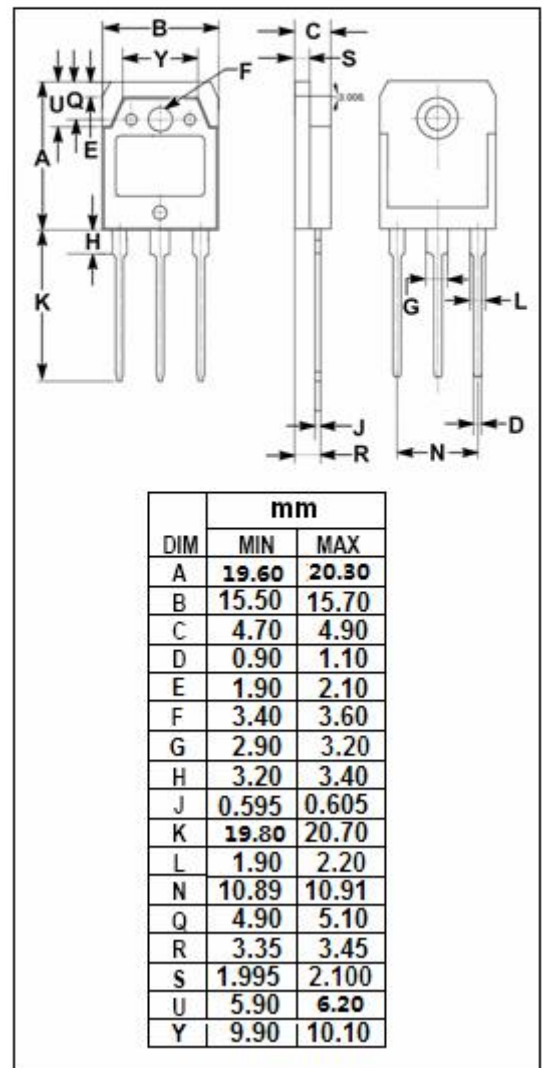
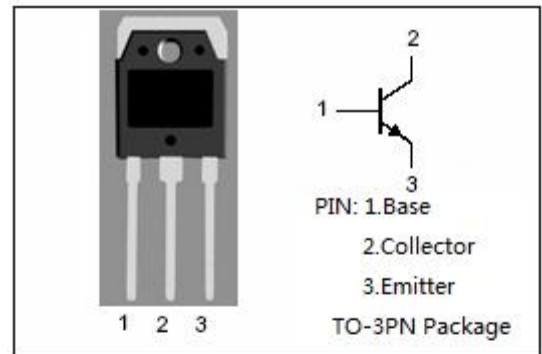
- Low saturation voltage
- High Switching Speed
- High reliability
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### 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	$^{\circ}\text{C}$



**isc Silicon NPN Power Transistor****2SC4275****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	$\mu\text{A}$
$I_{EBO}$	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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