

isc Silicon NPN Power Transistor
2SC2075
DESCRIPTION

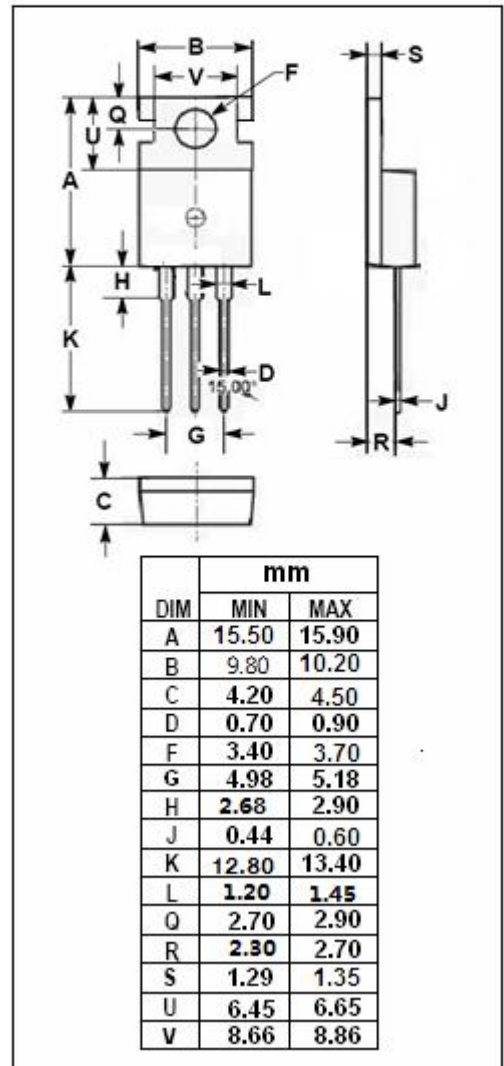
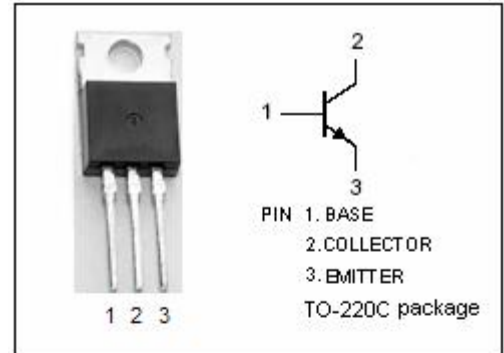
- High transition frequency
- Wide area of safe operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- 27MHz Power Amplifier Applications
- Recommended for output stage application of AM 4W transmitter

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CER}	Collector-Emitter Voltage $R_{BE}=150\ \Omega$	80	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	4	A
I_E	Emitter current	4	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}\text{C}$	10	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SC2075****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CER}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; R_{BE}=500\ \Omega$	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	4			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.3\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=30\text{V}; I_E=0$			10	μA
h_{FE-1}	DC Current Gain	$I_C=500\text{mA}; V_{CE}=5\text{V}$	25			
h_{FE-2}	DC Current Gain	$I_C=3\text{A}; V_{CE}=2\text{V}$	15			
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1\text{MHz}$		40		pF
f_T	Current-Gain—Bandwidth Product	$I_C=500\text{mA}; V_{CE}=5\text{V}$		100		MHz
P_O	Output Power	$V_{CC}=12\text{V}; P_{in}=0.3\text{W}, f=27\text{MHz}$	3.5			W

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