

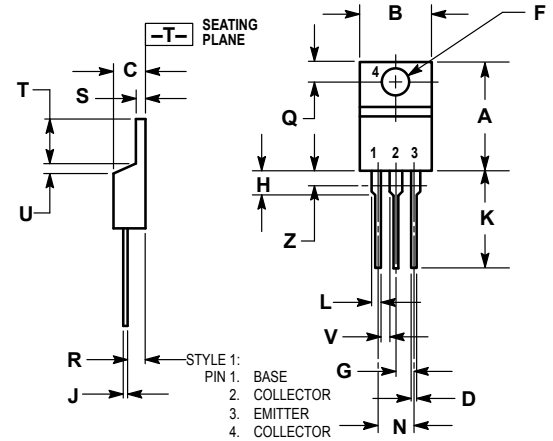
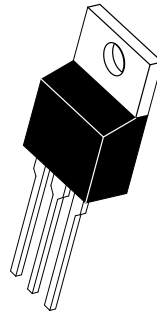
Silicon NPN POWER TRANSISTOR

DESCRIPTION

Designed primarily for SSB linear power amplifier applications

FEATURES

- Specified 12.5V, 27MHz Characteristics
- $P_o = 4W$ PEP
- $f_t = 200$ MHz



DIMENSIONS

UNIT	A	B	C	D	F	G	H	J	K	L	N	Q	R	S	T	U	V	Z
mm	15.75	10.28	4.82	0.88	3.73	2.66	3.93	0.64	14.27	1.52	5.33	3.04	2.79	1.39	6.47	1.27	--	2.04
	14.48	9.66	4.07	0.64	3.61	2.42	2.8	0.46	12.70	1.15	4.83	2.54	2.04	1.15	5.97	0.00	1.15	--
inches	0.620	0.405	0.19	0.035	0.147	0.105	0.155	0.025	0.562	0.060	0.210	0.12	0.11	0.055	0.255	0.05	--	0.08
	0.570	0.380	0.16	0.025	0.142	0.095	0.110	0.018	0.500	0.045	0.190	0.10	0.08	0.045	0.235	0.00	0.045	--

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CB0}	80	V
Collector-Emitter Voltage	V_{CES}	75	V
Collector-Emitter Voltage	V_{CEO}	35	V
Collector Current	I_c	5	A
Emitter-Base Voltage	V_{EBO}	5	V
Collector Power Dissipation	P_{DISS}	12	W
Junction Temperature	T_J	-65 to 175	°C
Storage Temperature Range	T_{STG}	-65 to 175	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_c=1mA, I_B=0$	35	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_c=1mA, V_{EB}=0$	35	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=0.1mA, I_C=0$	5	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB}=40V, I_E=0$			10	uA
DC Current Gain	h_{FE}	$V_{CE}=5V, I_c=0.5A$	25	-	200	
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0$ $f=1MHz$	-	45	60	pF
Output Power	P_o	$V_{CC}=12V, P_i=0.2W,$	4.0	-	-	W
Collector Efficiency	η_c	$f=27MHz$	60	-	-	%

The 2SC2078 are classified by 0.5A h_{FE} as follows

Rank	B	C	D	E
h_{FE}	25 to 50	40 to 80	60 to 120	100 to 200

Note : Above parameters , ratings , limits and conditions are subject to change