

Silicon NPN Power Transistors

2SC2654

DESCRIPTION

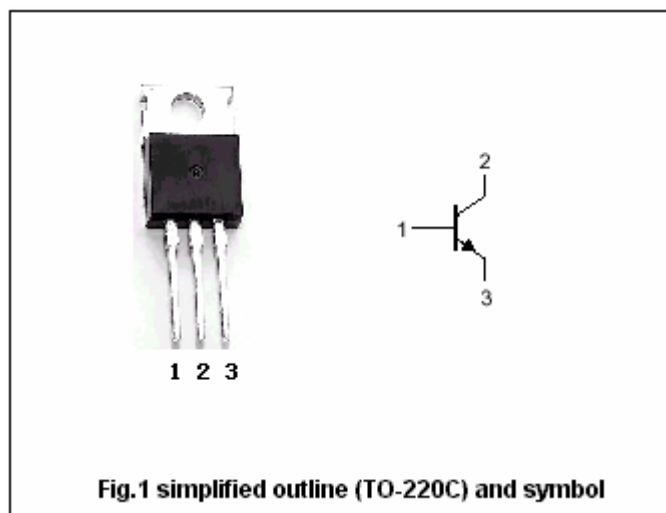
- With TO-220 package
- Complement to type 2SA1129
- Low collector saturation voltage

APPLICATIONS

- For low-frequency power amplifiers and mid-speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	40	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current-peak		15	A
I_B	Base current (DC)		3.5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	40	W
		$T_a=25^\circ\text{C}$	1.5	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors

2SC2654

CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)-1}$	Collector-emitter saturation voltage	$I_C=3A ; I_B=0.1A$			0.3	V
$V_{CE(sat)-2}$	Collector-emitter saturation voltage	$I_C=5A ; I_B=0.5A$			0.6	V
$V_{BE(sat)-1}$	Base-emitter saturation voltage	$I_C=3A ; I_B=0.1A$			1.5	V
$V_{BE(sat)-2}$	Base-emitter saturation voltage	$I_C=5A ; I_B=0.5A$			2.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=40V ; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			10	μA
h_{FE-1}	DC current gain	$I_C=3A ; V_{CE}=1V$	40		320	
h_{FE-2}	DC current gain	$I_C=5A ; V_{CE}=1V$	20			

Switching times

t_{on}	Turn-on time	$I_C=5.0A$ $I_{B1}=0.5A, I_{B2}=-0.5A$ $V_{CC}=20V, R_L=4.0\Omega$			1.0	μs
t_s	Storage time				2.5	μs
t_f	Fall time				1.0	μs

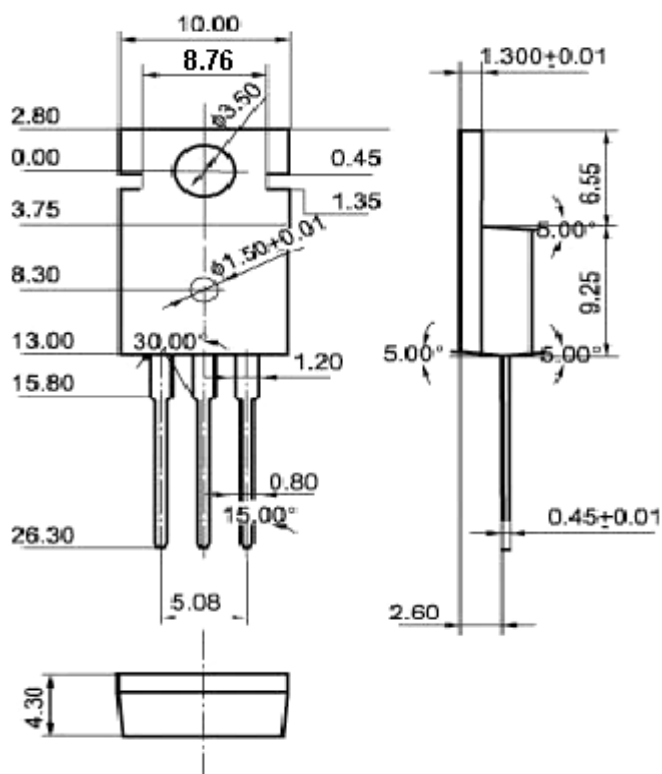
◆ h_{FE-1} Classifications

M	L	K	J
40-80	60-120	100-200	160-320

Silicon NPN Power Transistors

2SC2654

PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)