Silicon NPN Power Transistors 2SC2654

DESCRIPTION

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

APPLICATIONS

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

PINNING

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

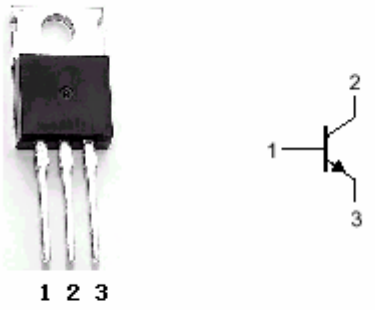

Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25□)

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□	40	W
		T_a=25□	1.5	
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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CHARACTERISTICS

Tj=25□ 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}=0.5 A ,I_{B2}=-0.5A V_{CC}≈20V, R_L=4.0Ω			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

PACKAGE OUTLINE

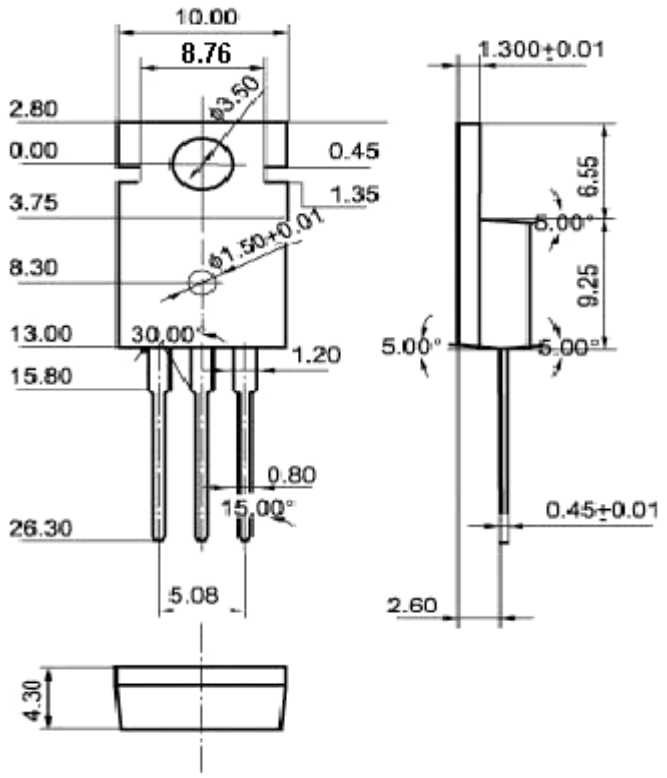

Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)