

isc Silicon NPN Power Transistor

2SC2654

DESCRIPTION

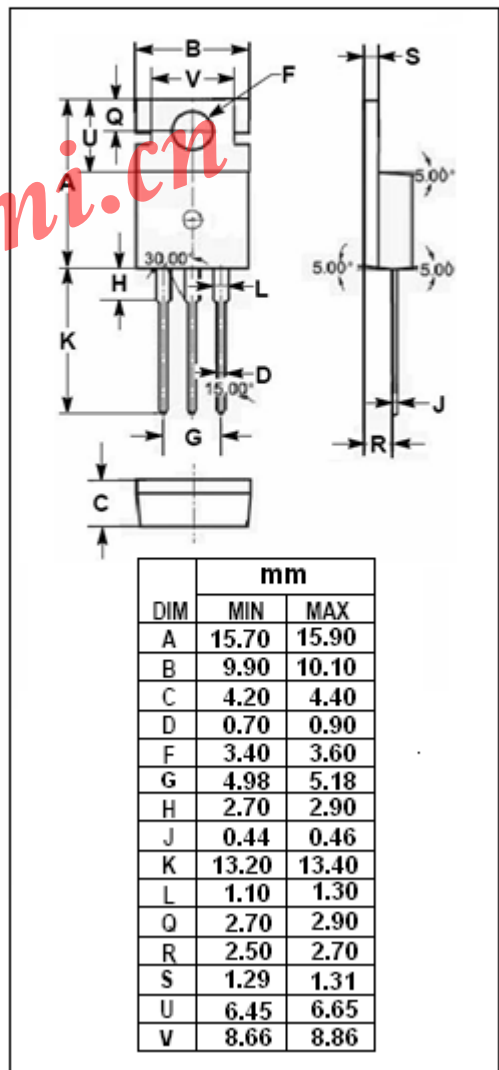
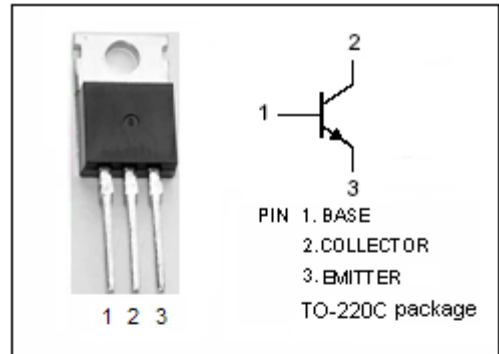
- High Collector Current: $I_C = 7A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 0.3(V)(Max) @ I_C = 3A$
- Complement to Type 2SA1129

APPLICATIONS

- Designed for low-frequency power amplifiers and mid-speed switching applications.
- Ideal for use in a lamp driver.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current- Continuous	3.5	A
P_C	Total Power Dissipation @ $T_a=25^{\circ}C$	1.5	W
	Total Power Dissipation @ $T_C=25^{\circ}C$	40	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ 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 Cutoff Current	$V_{CB}=40V; I_E=0$			10	μA
I_{EBO}	Emitter Cutoff 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	$I_C=5A, R_L=4\Omega, I_{B1}=-I_{B2}=0.5A, V_{CC}\approx 20V$			1.0	μs
t_{stg}	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