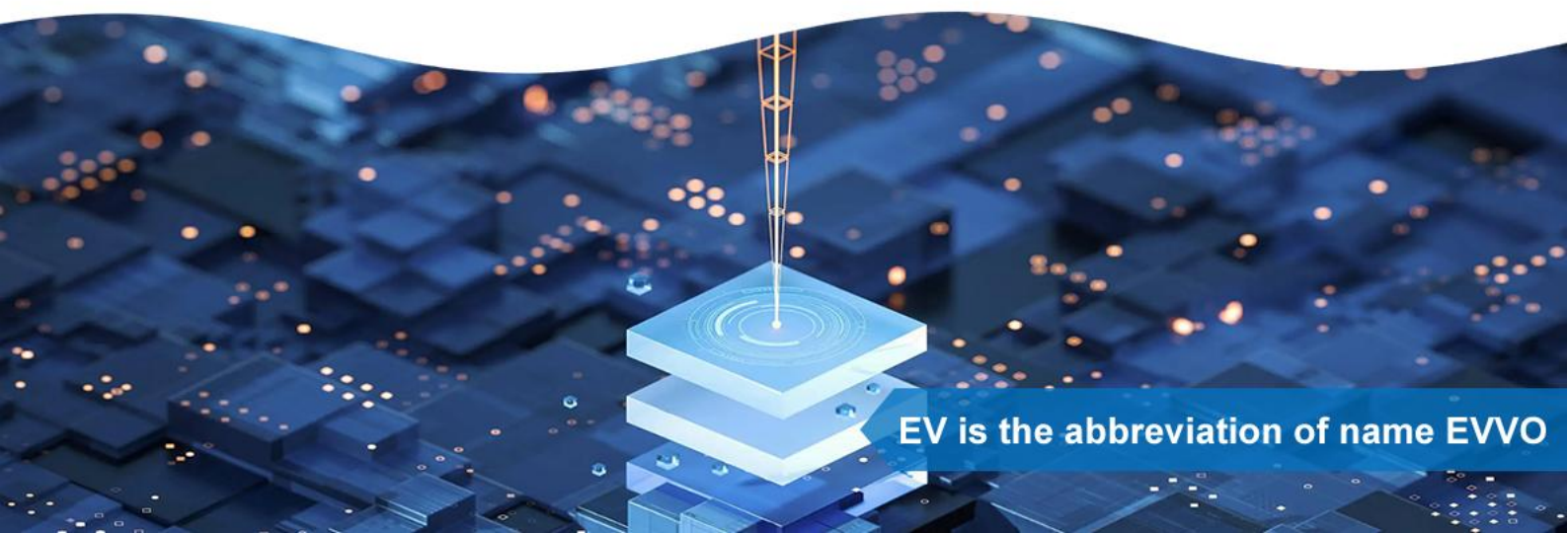
EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

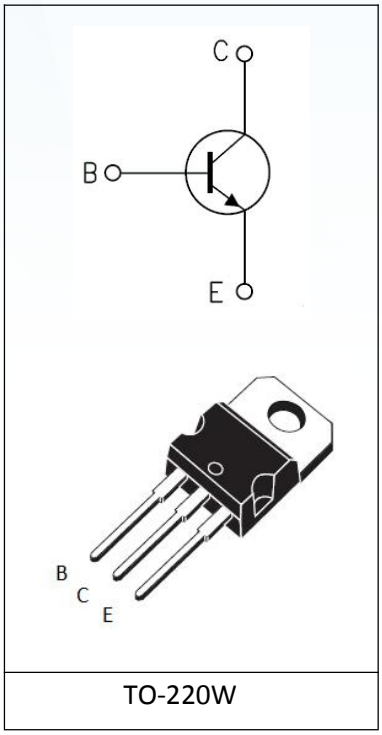
Domestic Part Number	TIP41C
Overseas Part Number	TIP41C
Equivalent Part Number	TIP41C



Silicon NPN Epitaxial Transistor

TIP41C

TIP41C, the base island technology NPN power transistor, make this device suitable for audio,power linear and switching applications.The complementary PNP type is TIP42C



TO-220W

Features

- Complementary PNP-NPN devices
- h_{FE} grouping
- h_{FE} improved linearity
- RoHS product

Applications

- General purpose circuits
- Audio amplifier
- Power linear and switching

Absolute Maximum Ratings (T_a=25℃ unless otherwise noted):

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current(DC)	I_C	6	A
Collector Peak Current(tp<5ms)	I_{CM}	10	A
Base Current(DC)	I_B	2	A
Base Peak Current(tp<5ms)	I_{BM}	4	A
Collector Power Dissipation	P_C	65	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{STG}	-65~150	℃

Electrical Characteristics (T_a=25℃ unless otherwise noted):

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Cut-off Current	I_{CBO}	V_{CB}=100V,I_E=0			0.4	mA
Collector-Emitter Cut-off Current	I_{CEO}	V_{CE}=100V,I_B=0			0.4	mA
Emitter-Base Cut-off Current	I_{EBO}	V_{EB}=5V,I_C=0			1.0	mA
Collector-Base Breakdown Voltage	V_{CBO}	I_C=0.1mA	100			V
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=1mA	100			V
Emitter-Base Breakdown Voltage	V_{EBO}	I_E=100uA	5			V
DC Current Gain	h_{FE1}	V_{CE}=5V, I_C=1A	40			
	h_{FE2}	V_{CE}=5V, I_C=3A	15		75	
Collector-Emitter Saturation Voltage	V_{CEsat}	I_C=6A,I_B=0.6A			1.5	V
Transition Frequency	f_T	V_{CE}=10V,I_{CE}=0.5A	3			Mhz

Thermal Characteristics

Symbol	Parameter	Typ.	Units
$R_{\theta JC}$	Junction-to-Case	2.0	℃/W

Typical Characteristics

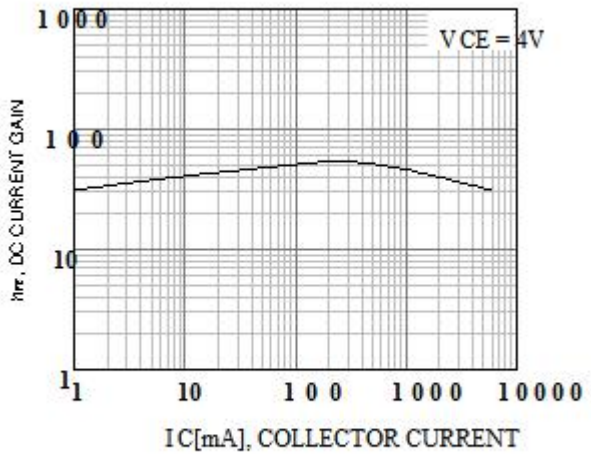


Figure 1. DC current Gain

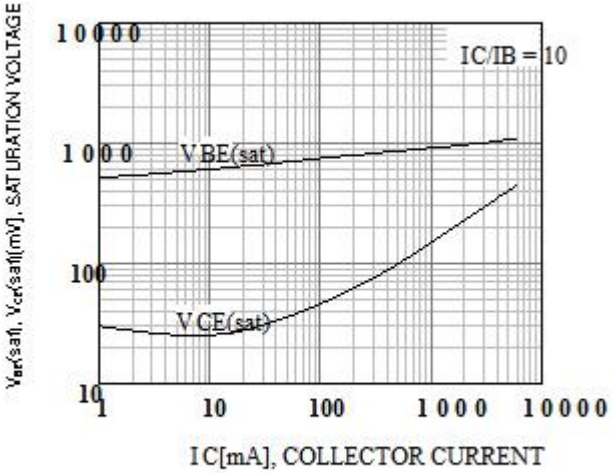


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

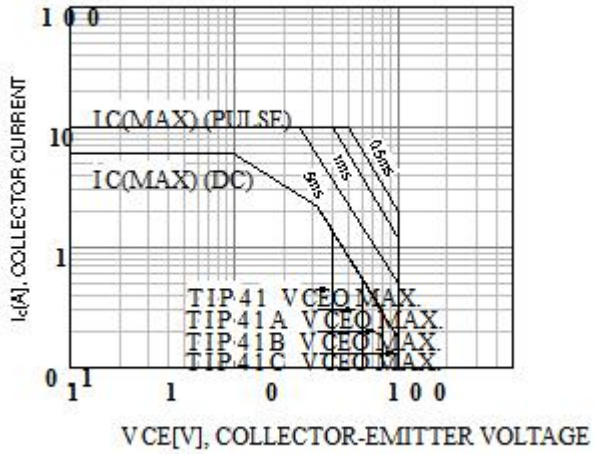


Figure 3. Safe Operating Area

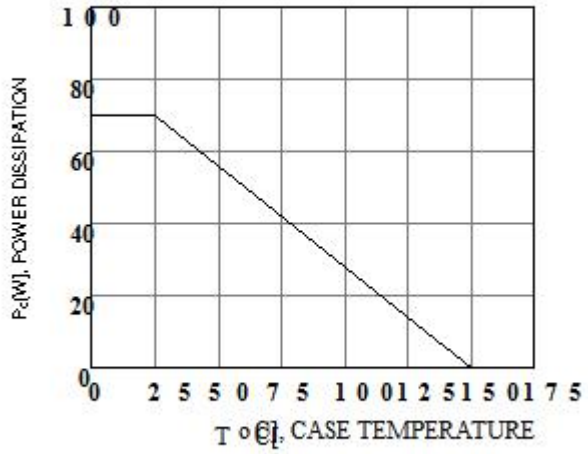
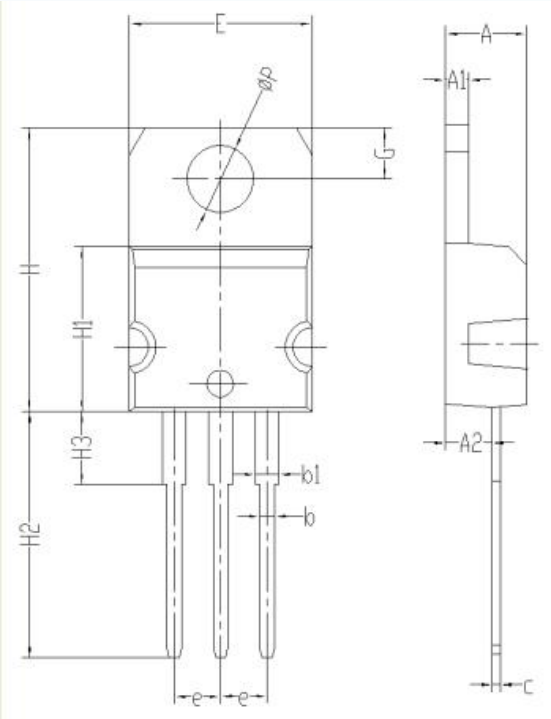


Figure 4. Power Derating

Package Information

TO-220M PACKAGE



Symbol	Dimensions (millimeters)	
	Min.	Max.
A	4.05	4.45
A1	1.05	1.45
A2	2.35	2.75
b	0.60	1.00
b1	1.12	1.52
c	0.25	0.65
e	2.34	2.74
E	9.95	10.4
H	15.3	15.7
H1	8.80	9.20
H2	13.0	14.0
H3	3.80	4.20
G	2.60	3.00
ΦP	3.60	4.00

Disclaimer

EVVOSEMI ("EVVO") reserves the right to make corrections, enhancements, improvements, and other changes to its products and services at any time, and to discontinue any product or service without notice.

EVVO warrants the performance of its hardware products to the specifications applicable at the time of sale in accordance with its standard warranty. Testing and other quality control techniques are used as deemed necessary by EVVO to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

Customers should obtain and confirm the latest product information and specifications before final design, purchase, or use. EVVO makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does EVVO assume any liability for application assistance or customer product design. EVVO does not warrant or accept any liability for products that are purchased or used for any unintended or unauthorized application.

EVVO products are not authorized for use as critical components in life support devices or systems without the express written approval of EVVOSEMI.

The EVVO logo and EVVOSEMI are trademarks of EVVOSEMI or its subsidiaries in relevant jurisdictions. EVVO reserves the right to make changes without further notice to any products herein.