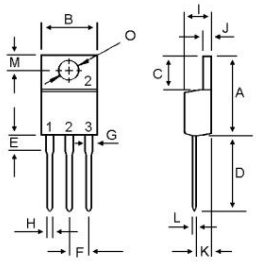
Low frequency amplifier case rated bipolar transistor

Product Features

- High withstand voltage
- High current capacity
- High switching speed
- High reliability

Main Application

- High frequency switching power supply
- Electronic ballast for energy-saving lamps
- High frequency power conversion
- General power amplifier circuit



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
O	3.70	3.90

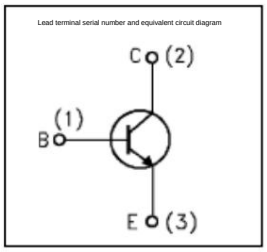
Overview

D13007MF is a NPN bipolar high power transistor used in manufacturing

The main process technologies include high voltage planar process technology, triple diffusion technology

technology, and has adopted the method that can maximize the balance between current capacity and endurance

Horizontal design of the grid for the launch area of electric shock.



Absolute Maximum Ratings (Tc=25) ℃

Item Code Collector-Base DC Voltage		Numeric	unit
VCBO Collector-Emitter DC Voltage VCEO		700	V
Emitter-Base DC Voltage VEBO Maximum		400	V
Collector-DC Current Maximum Collector Power		11	V
Dissipation Maximum	Ic	8	A
Junction Temperature	Pc	80	w
Storage	Tj	150	℃
Temperature	Ts	-55~+150	℃

Electrical characteristics (Tc=25) ℃

Item Test Conditions Collector-Emitter Holding Voltage VCEO(SUS)	Symbol		Minimum and maximum values.		Unit
Ic=10mA,IB=0 Collector-Base Breakdown Voltage V(BR)CBO Ic=1mA,IB=0			400		V
Emitter-Base Breakdown Voltage V(BR)EBO IE=1mA,Ic=0 Collector-Base			700		V
Reverse Leakage Current ICBO Collector-Emitter Reverse Leakage			11		V
Current ICEO Emitter-Base Reverse Leakage		VCB=700V, IE=0		100	μA
Current IEBO		VCE=430V,IB=0		50	μA
—		VEB=7V, IC=0		10	μA
DC Current Gain	hFE(1)	VCE=5V, IC=2A	8	50	
	hFE(2)	VCE=5V, IC=5A	5		
Collector emitter saturation voltage drop	VCE(sat)(1) IC=2A, IB=0.4A			1.2	V
	VCE(sat)(2) IC=8A, IB=2A			3	V
Base emitter saturation voltage drop VBE(sat)		IC=2A, IB=0.5A		1.2	V
Fall time	tf	VCC=24V IC=5A, IB1=-IB2=1A		0.7	μS
Storage time	ts	VCC=24V IC=5A, IB1=-IB2=11A		4	μS
Characteristic frequency	f	VCE=10V, Ic=0.5A	4	-	MHz

Thermal properties

Project junction	symbol	Minimum and maximum values.		Unit
to case thermal resistance	Rth(jc)		1.56	℃/W

Characteristic curve