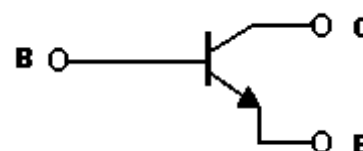
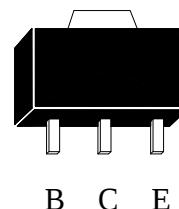


Low Vcesat NPN Epitaxial Planar Transistor

SOT-89

Features:

- Low $V_{CE(sat)}$, $V_{CE(sat)}=0.35\text{ V}$ (typical), at $I_C / I_B = 3\text{ A} / 0.1\text{ A}$
- Excellent DC current gain characteristics
- Complementary to KMB1386M3
- Pb-free lead plating and halogen-free package



B : Base C : Collector
E : Emitter

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	5	A
Collector Current (Pulse)		8 *1	A
Power Dissipation	P_d	0.6	W
Thermal resistance, junction to ambient	$R_{\theta JA}$	125 *2	°C/W
Thermal resistance, junction to case			
Junction Temperature	T_j	150	
Storage Temperature	T_{stg}	-55~+150	°C

Note : *1 Single pulse , $P_w=10\text{ms}$

*2 Printed circuit board, glass epoxy board, 1.7mm thick with collector copper plating 10mm*10mm.

*3 When mounted on a 40*40*0.7mm ceramic board.

Ordering Information

Device	Package	Shipping
KM2098M3	SOT-89 (Pb-free lead plating and halogen-free package)	1000 pcs / Tape & Reel

Characteristics (Ta=25°C)

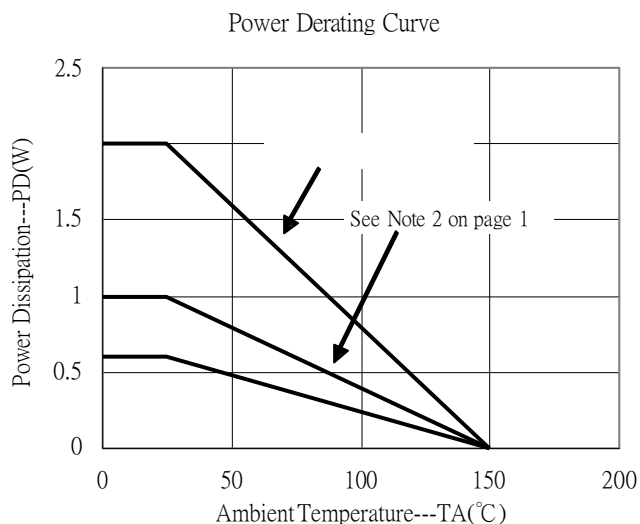
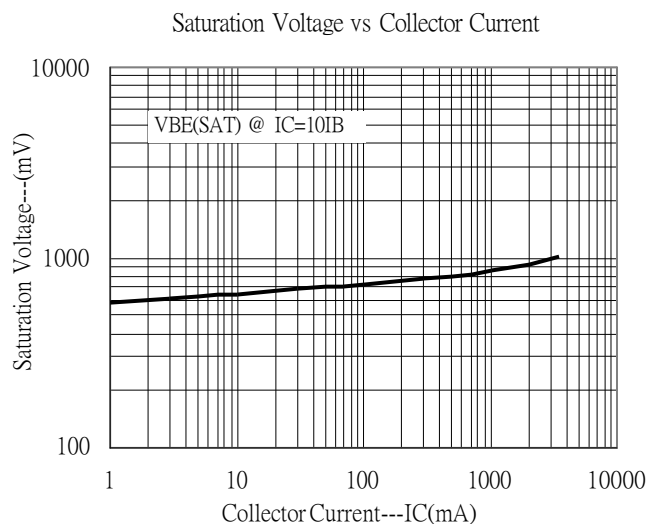
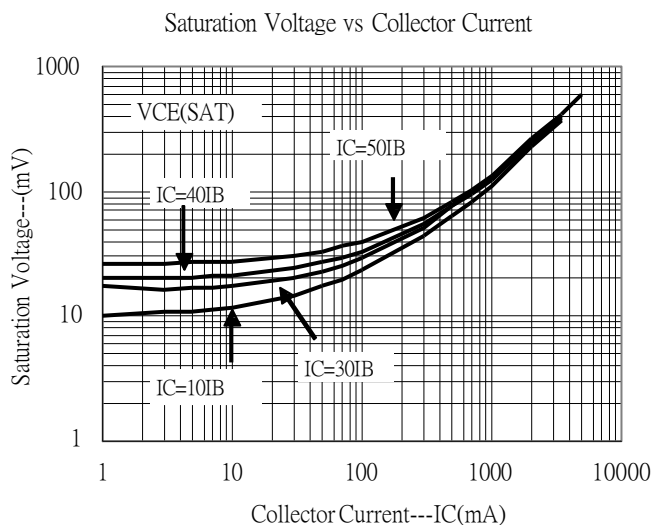
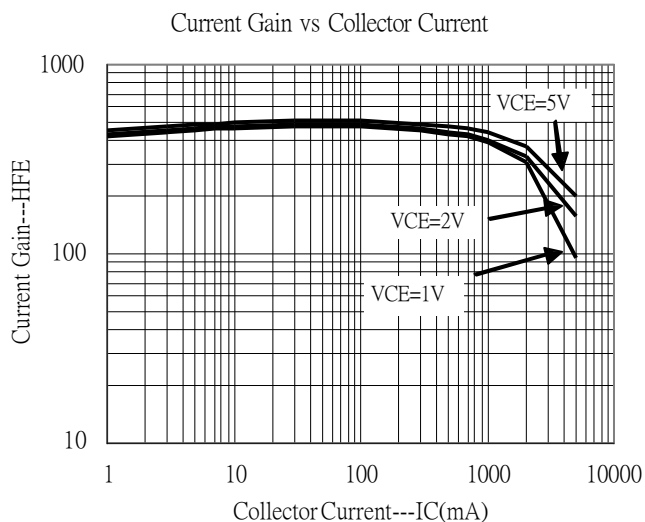
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CBO}	40	-	-	V	I _C =50μA, I _E =0
BV _{CEO}	30	-	-	V	I _C =1mA, I _B =0
BV _{EBO}	6	-	-	V	I _E =50μA, I _C =0
I _{CBO}	-	-	0.5	μA	V _{CB} =40V, I _E =0
I _{EBO}	-	-	0.5	μA	V _{EB} =5V, I _C =0
*V _{CE(sat)}	-	0.35	1.0	V	I _C =3A, I _B =0.1A
*h _{FE}	250	-	-	-	V _{CE} =2V, I _C =20mA
*h _{FE}	270	-	560	-	V _{CE} =2V, I _C =500mA
*h _{FE}	150	-	-	-	V _{CE} =2V, I _C =2A
f _T	-	150	-	MHz	V _{CE} =6V, I _C =50mA, f=100MHz
Cob	-	30	50	pF	V _{CB} =20V, I _E =0A, f=1MHz

*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

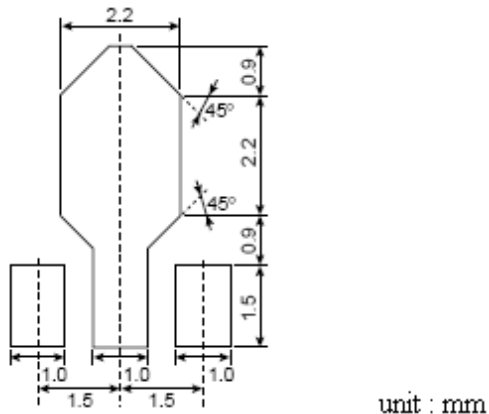
Classification Of h_{FE}

Rank	S
Range	270~560

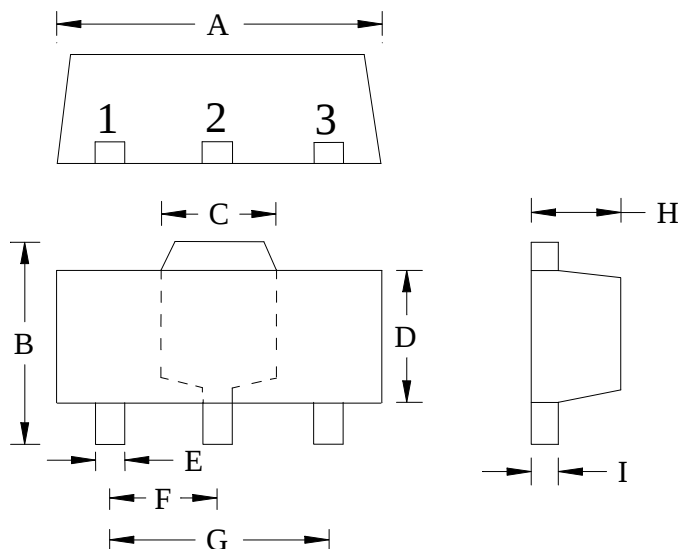
Typical Characteristics



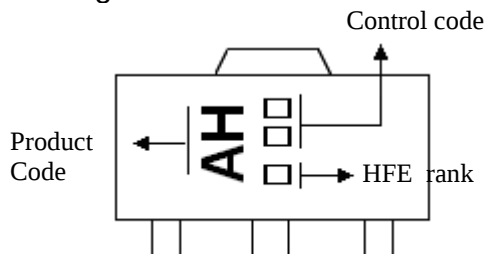
Recommended soldering footprint



SOT-89 Dimension



Marking:



Style: Pin 1. Base 2. Collector 3. Emitter

3-Lead SOT-89 Plastic
 Surface Mounted Package
 Code: M3

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1732	0.1811	4.40	4.60	F	0.0591	TYP	1.50	TYP
B	0.1551	0.1673	3.94	4.25	G	0.1181	TYP	3.00	TYP
C	0.0610	REF	1.55	REF	H	0.0551	0.0630	1.40	1.60
D	0.0906	0.1024	2.30	2.60	I	0.0138	0.0173	0.35	0.44
E	0.0126	0.0205	0.32	0.52					