

Description

Silicon NPN transistor in a SOT-89 Plastic Package

Applications

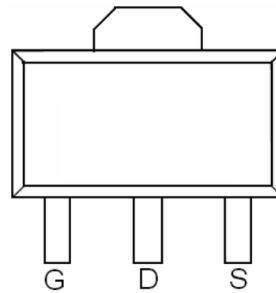
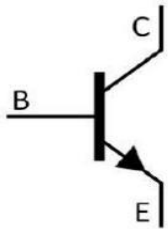
Power amplifier and switching applications.

Features

- Low saturation voltage
- High speed switching time
- Small flat package Complementary to KTA1666
- Halogen-free product

Symbol	Parameter	Max	Unit
V_{CEO}	collector-emitter voltage	50	V
I_c	collector current (DC)	2.0	A

Equivalent Circuit & Pinning



SOT-89 top view

PIN1: Base

PIN 2: Collector

PIN 3: Emitter

hFE Classifications & Marking

H _{fe} Classifications Symbol	O	Y
h _{FE} Range	70~140	120~240
Marking	HMO	HMY

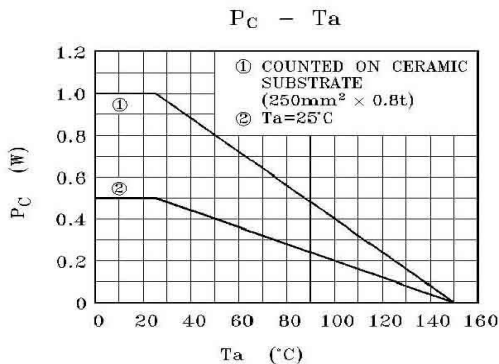
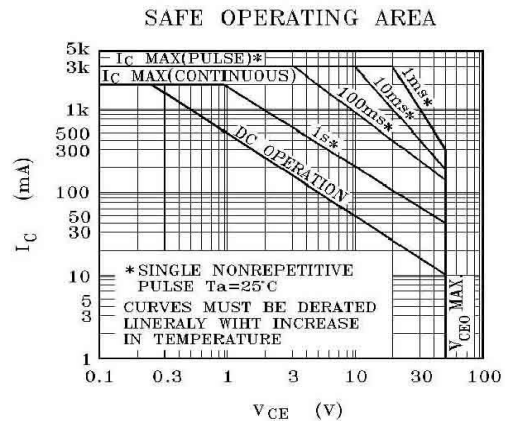
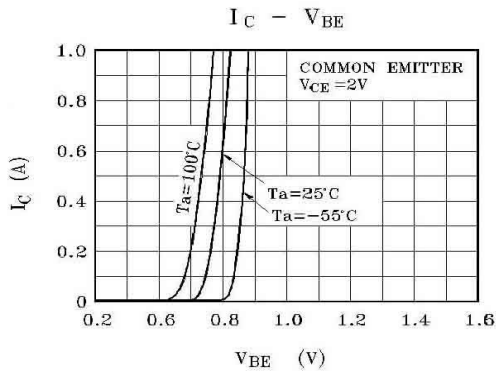
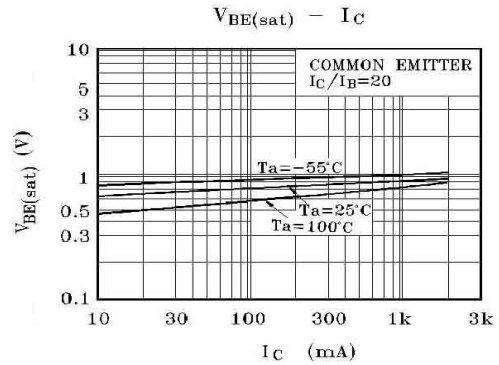
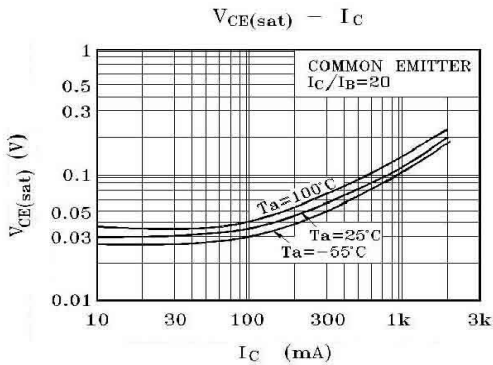
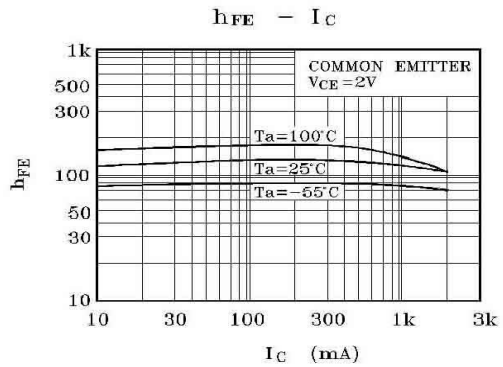
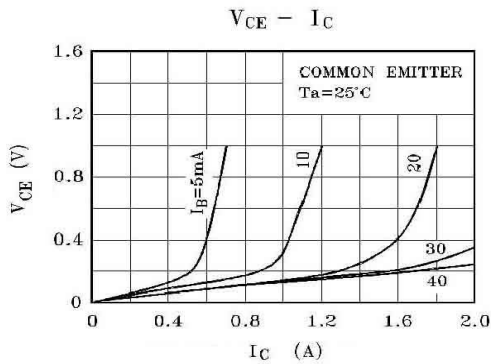
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CB0}	50	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	2.0	A
Collector Base – Continuous	I_B	0.4	A
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation*	* P_C	1	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

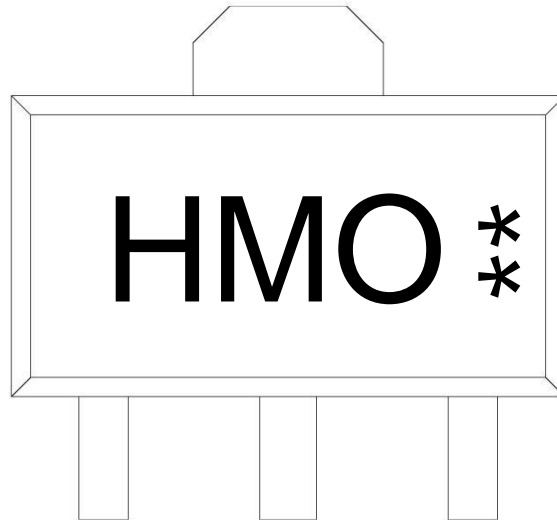
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	μA
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	50			V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=0.5A$	70		240	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=1.5A$	40			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.0A$ $I_B=0.05A$			0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.0A$ $I_B=0.05A$			1.2	V
Transition Frequency	f_T	$V_{CE}=2.0V$ $I_C=0.5A$		120		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1MHz$		30		pF
Turn-on Time	t_{on}	$I_{B1}=-I_{B2}=0.05A$		0.1		μS
Storage Time	t_{stg}			1.0		μS
Turn-off Time	t_f			0.1		μS

Electrical Characteristic Curve



Marking Instructions



Note:

- H: Company Code
- M: Product Type
- O: h_{FE} Classifications Symbol
- ** : Lot No. Code, code change with Lot No

h_{FE} Classifications Symbol	O	Y
h_{FE} Range	70~140	120~240
Marking	HMO	HMY

Packaging SPEC.

REEL INFORMATION

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	6	42,000	7" x12	180x120x180	390x385x205

Package Outline Dimensions

SOT-89

单位: mm

