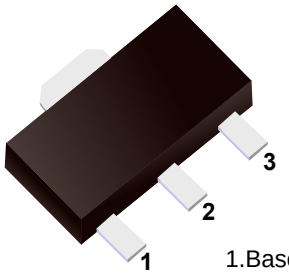
PNP Plastic-Encapsulate Transistors

High Current Applications



1.Base
2.Collector
3.Emitter

SOT-89

Features

- High current output up to -2A.
- Complement to KTC3205

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	-30	V
Collector-Emitter Voltage	BV_{CEO}	-30	V
Emitter-Base Voltage	BV_{EBO}	-5	V
Collector Current	I_C	-2	A
Collector Power Dissipation	P_C	0.5	W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55～+150	℃

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	BV_{CBO}	I_C = -1mA，I_E = 0	40			V
Collector-emitter breakdown voltage	BV_{CEO}	I_C = -10mA，I_B = 0	30			V
Emitter-base breakdown voltage	BV_{EBO}	I_E = -1mA，I_C = 0	5			V
Collector cut-off current	I_{CBO}	V_{CB} = -30V，I_E = 0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB} = -5V，I_C = 0			-100	nA
DC current gain	h_{FE1}	V_{CE} = -2V，I_C= -500mA	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -1.5A，I_B = -0.03A			-2.0	V
Base -emitter saturation voltage	V_{BE}	V_{CE} = -2V，I_C= -500mA			-1.0	V
Transition frequency	f_T	V_{CE} = -2V，I_C = -500mA		120		MH_Z
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz		48		pF

h_{FE} Classification

Classification	KTA1273-O	KTA1273-Y
Range	100~200	160~320
Marking	A1273 O	A1273 Y

Typical Characteristics

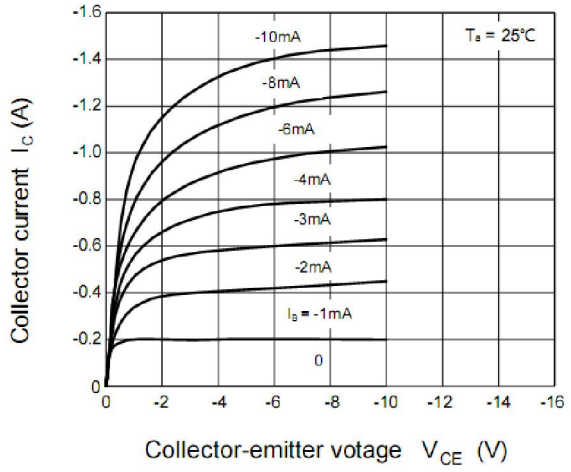


Fig.1 Static characteristics

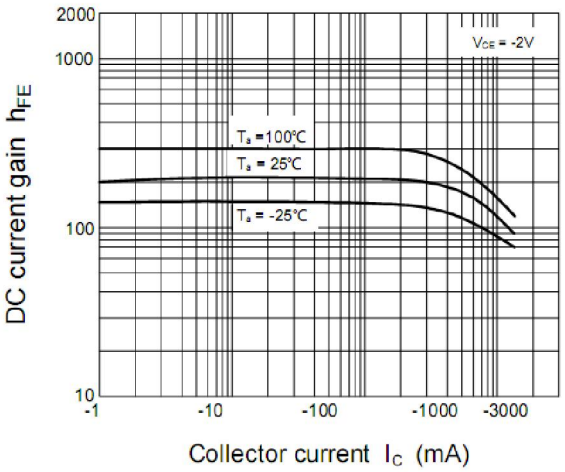


Fig.2 DC Current Gain

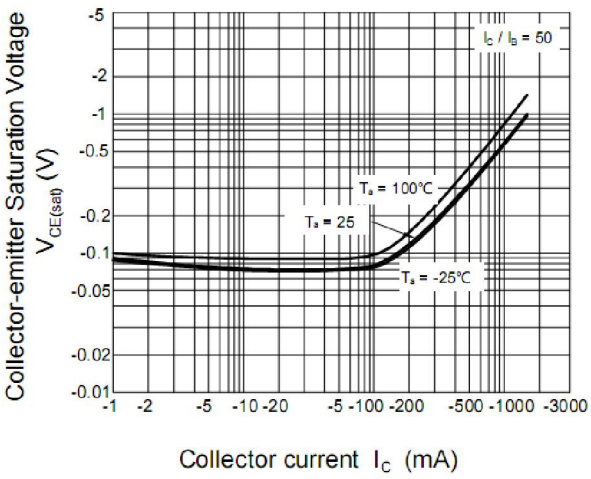


Fig.3 Collector-emitter Saturation Voltage

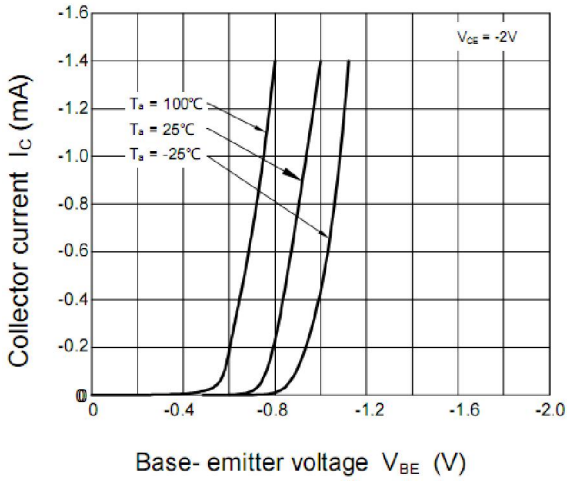


Fig.4 Safe Operating Area

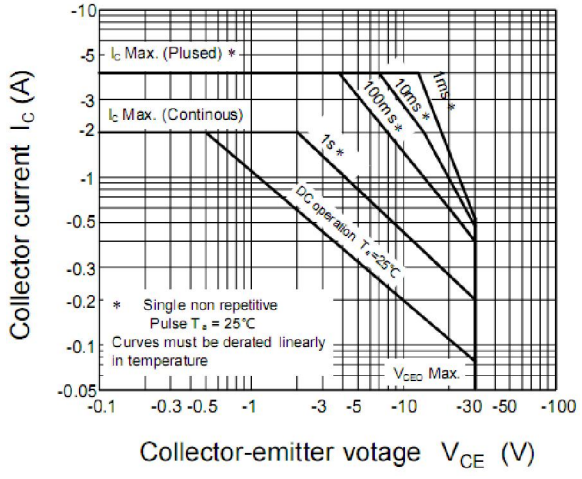


Fig.5 Safe Operating Area

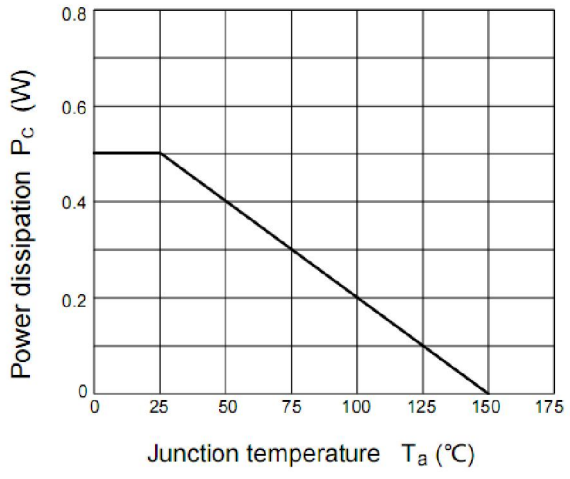


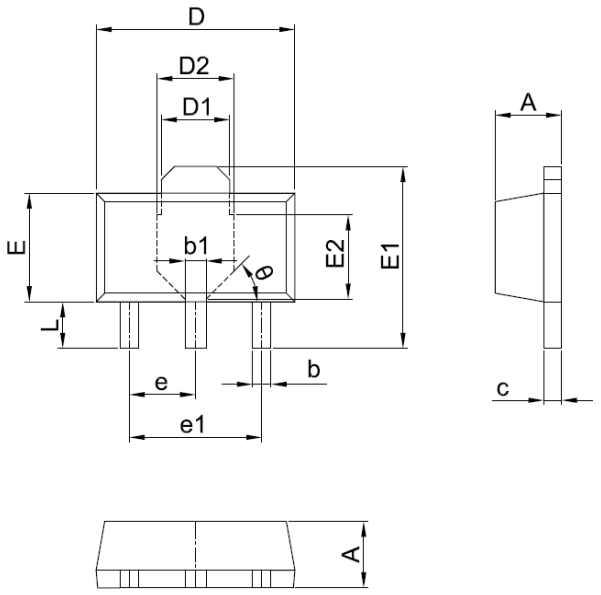
Fig.6 Power Derating

Ordering information

Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel,7"reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

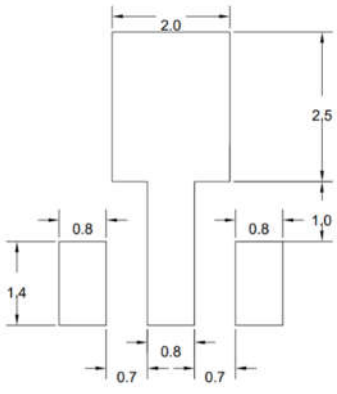
Package Dimensions

SOT-89



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



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