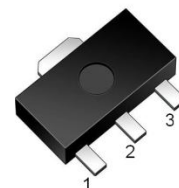


EPLACEMENT TYPE :2SA1664
FEATURES

- Small Flat Package
- High Current Application
- High Transition Frequency



SOT-89

1:BASE 2:COLLECTOR 3:EMITTER

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-35	V
Collector-Emitter Voltage	V _{CEO}	-30	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-0.8	A
Collector Power Dissipation	P _C	500	mW
Thermal Resistance From Junction to Ambient	R _{θJA}	250	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

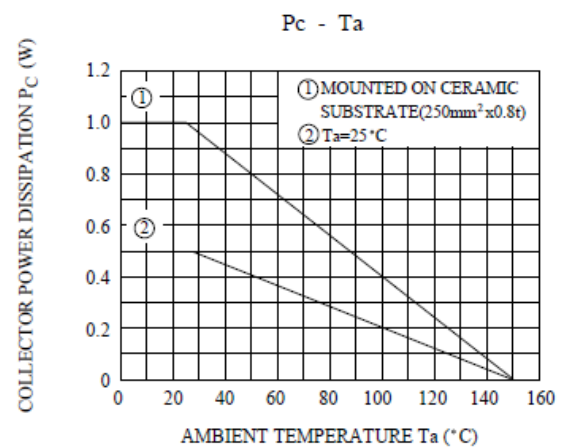
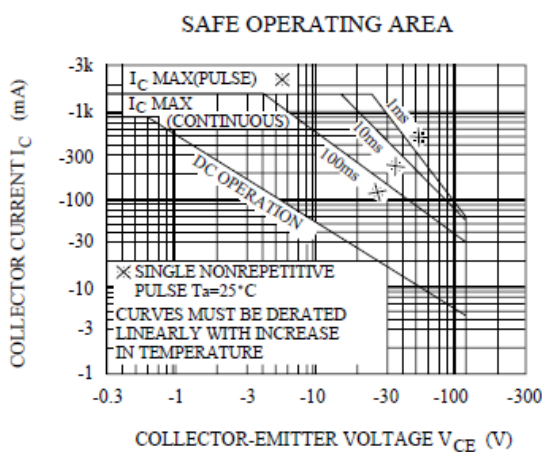
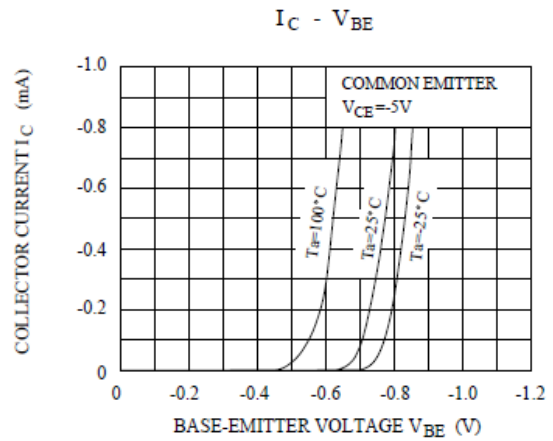
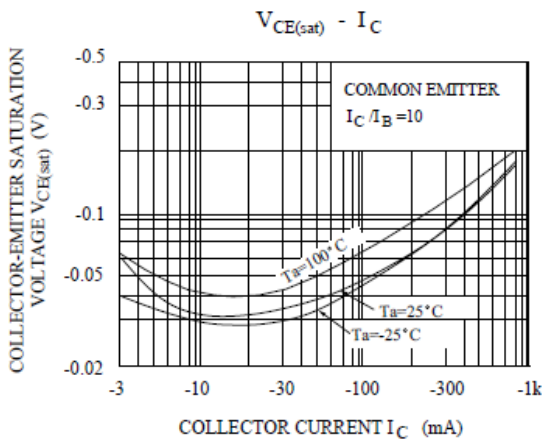
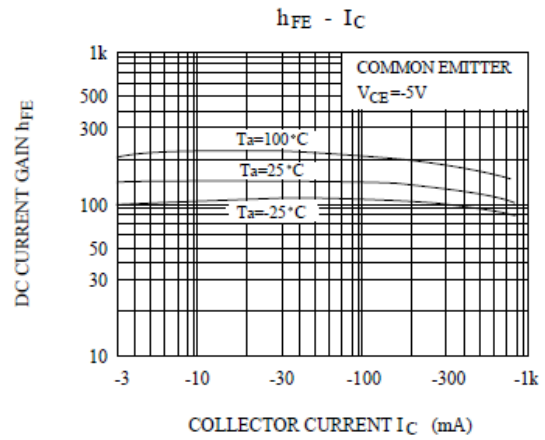
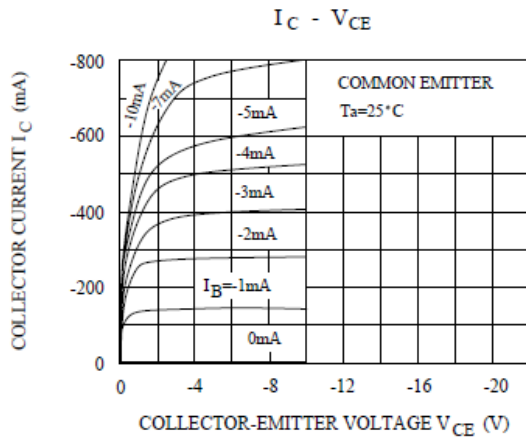
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

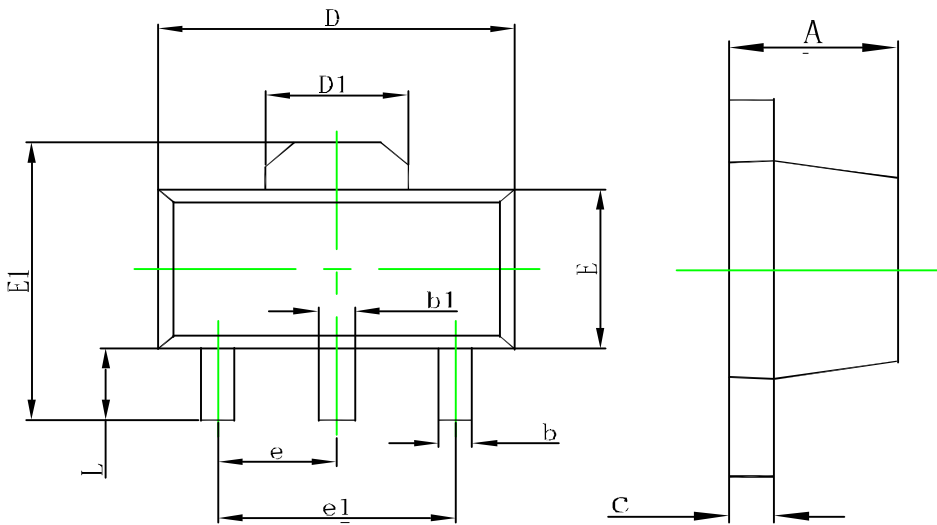
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V _{CB0}	I _C =-1mA, I _E =0	-35			V
Collector-Emitter Breakdown Voltage	V _{CEO}	I _C =-10mA, I _B =0	-30			V
Emitter-Base Breakdown Voltage	V _{EBO}	I _E =-1mA, I _C =0	-5			V
Collector Cut-off Current	I _{CB0}	V _{CB} =-35V, I _E =0			-100	nA
Emitter Cut-off Current	I _{EBO}	V _{EB} =-5V, I _C =0			-100	nA
DC Current Gain	h _{FE(1)}	V _{CE} =-1V, I _C =-100mA	100		320	
	h _{FE(2)}	V _{CE} =-1V, I _C =-700mA	35			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-500mA, I _B =-20mA			-0.7	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	V _{CE} =-1V, I _C =-10mA	-0.5		-0.8	V
Collector Output Capacitance	C _{OB}	V _{CB} =-10V, I _E =0, f=1MHz		19		pF
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA		120		MHz

CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	100-200	160-320
Marking	RO	RY

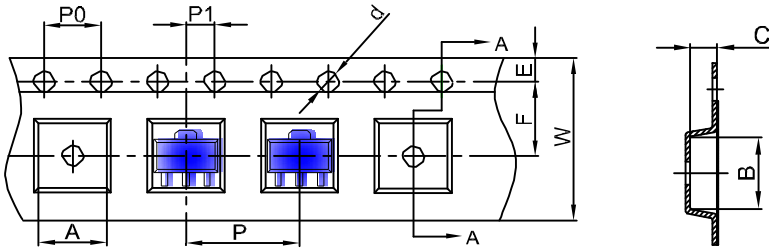
Typical Characteristics



SOT-89 Package Outline Dimensions


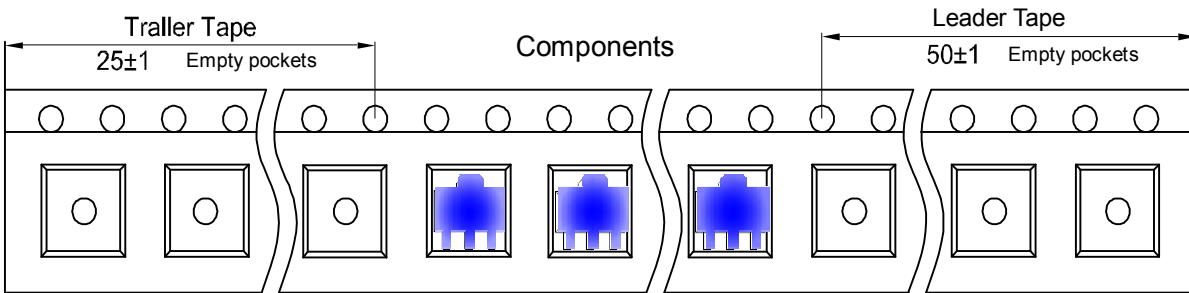
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550REF.		0.061REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP.		0.060TYP.	
e1	3.000TYP.		0.118TYP.	
L	0.900	1.200	0.035	0.047

SOT-89 Tape and Reel

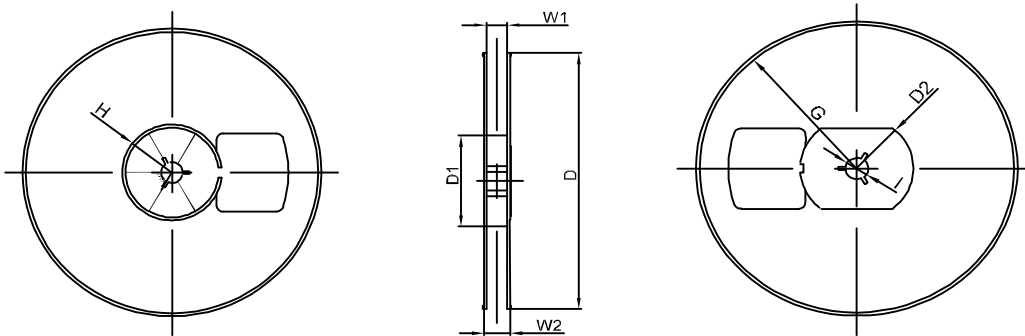


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-89	4.85	4.45	1.85	φ1.50	1.75	5.50	4.00	8.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOT-89 Tape Leader and Trailer



SOT-89 Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	φ 180	60.00	R32.00	R86.50	R30.00	φ 13.00	13.20	16.50
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1