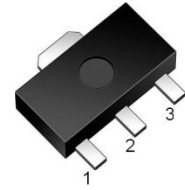


REPLACEMENT TYPE : FCX591

FEATURES

- Power Dissipation



SOT-89 MARKING:P1

1:BASE 2:COLLECTOR 3:EMITTER

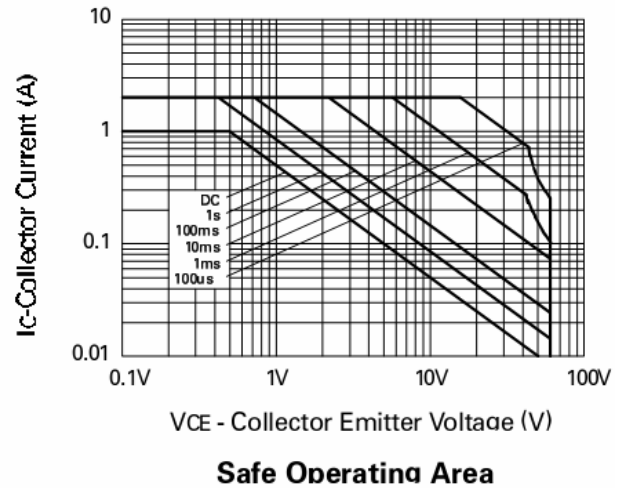
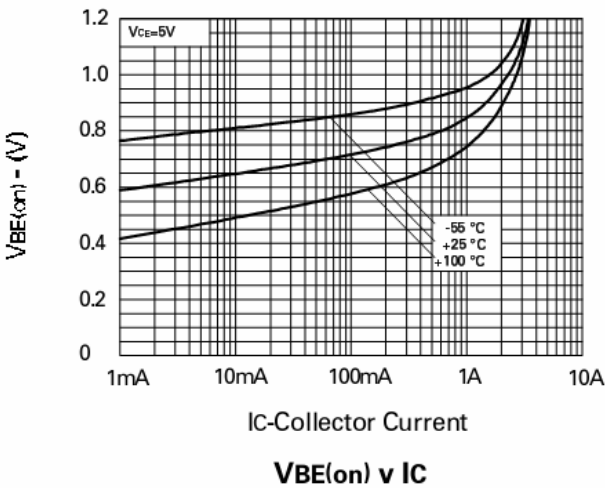
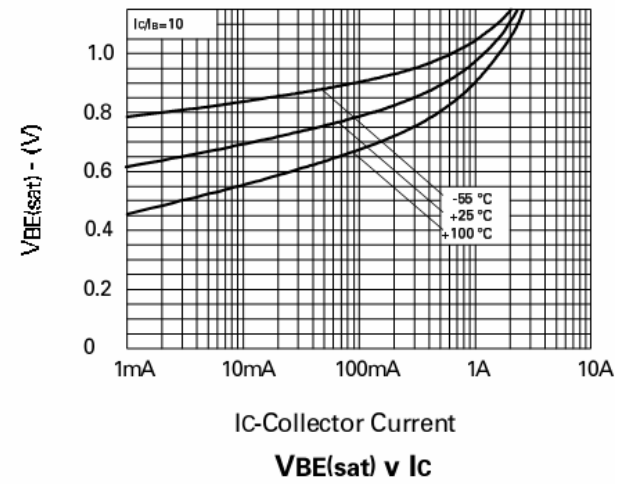
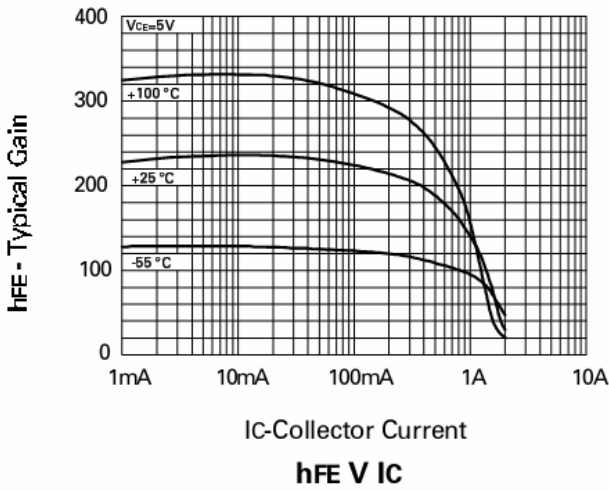
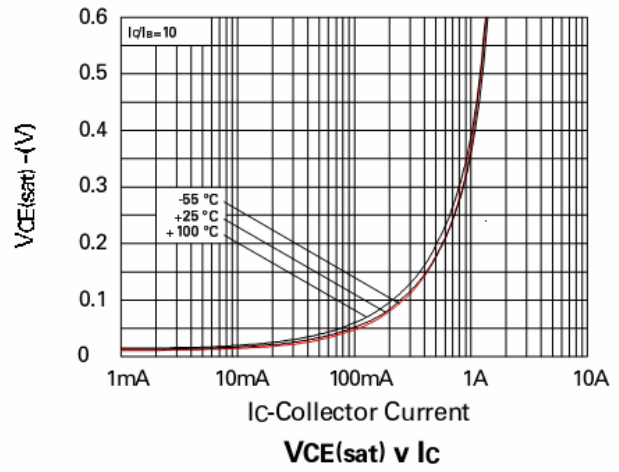
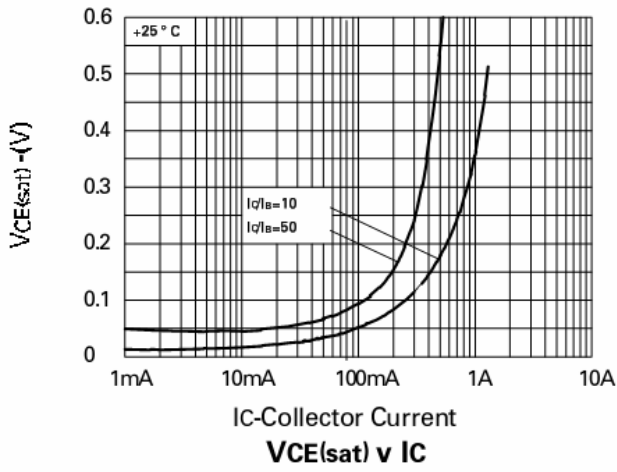
MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

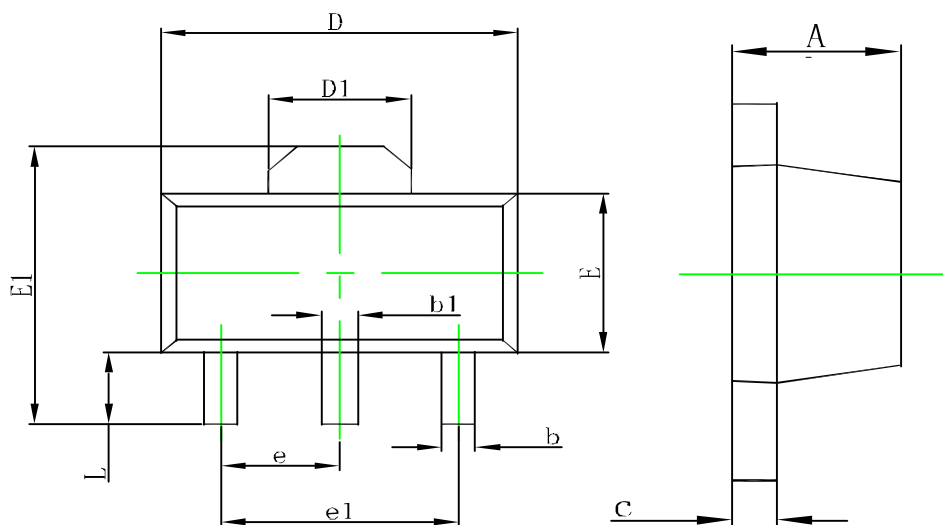
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-80	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-1	A
Collector Power Dissipation	P _C	0.5	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-65~150	°C

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 =-100uA, I _E =0	-80			V
Collector-Emitter Breakdown Voltage	V _{CEO}	I _C =-10mA, I _B =0	-60			V
Emitter-Base Breakdown Voltage	V _{EBO}	I _E =-100uA, I _C =0	-5			V
Collector Cut-off Current	I _{CB0}	V _{CB} =-60V, I _E =0			-0.1	uA
Emitter Cut-off Current	I _{EBO}	V _{EB} =-4V, I _C =0			-0.1	uA
Collector- Emitter Cut-off Current	I _{CES}	V _{CE} =-60 V, I _E =0			-0.1	uA
DC Current Gain(note)	h _{FE (1)}	V _{CE} =-5V, I _C =-1mA	100			
	h _{FE (2)}	V _{CE} =-5V, I _C =-500mA	100		300	
	h _{FE (3)}	V _{CE} =-5V, I _C =-1A	80			
	h _{FE (4)}	V _{CE} =-5V, I _C =-2A	15			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-0.3	V
		I _C =-1A, I _B =-100mA			-0.6	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-1A, I _B =-100mA			-1.2	V
Base-Emitter Voltage	V _{BE}	V _{CE} =-5V, I _C = -1A			-1	V
Collector Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz			10	pF
Transition Frequency	f _T	V _{CE} =-10V, I _C =-50mA, f=1MHz	150			MHz

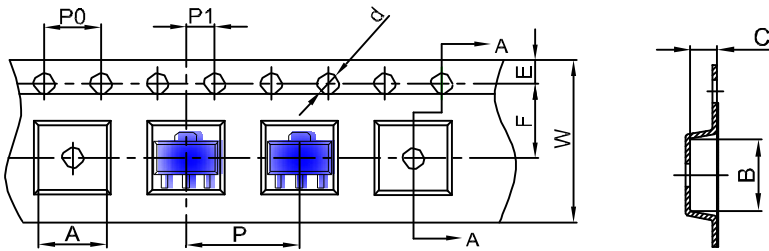
Typical Characteristics



SOT-89 Package Outline Dimensions


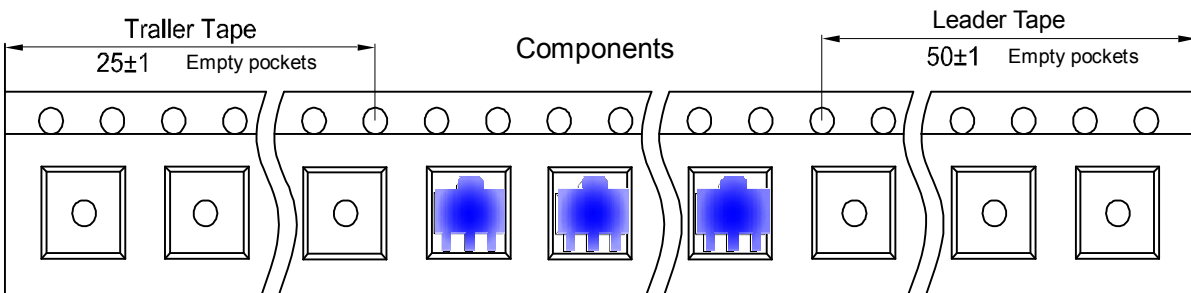
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550REF.		0.061REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP.		0.060TYP.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

SOT-89 Tape and Reel

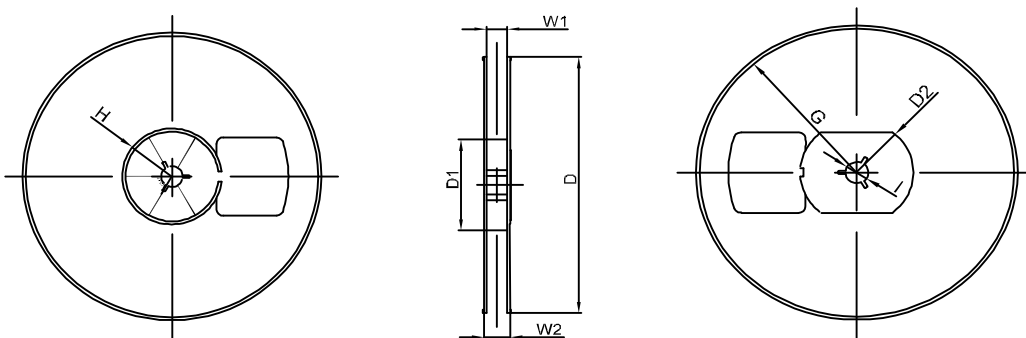


	DIMENSIONS ARE IN MILLIMETER									
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-89	4.85	4.45	1.85	$\phi 1.50$	1.75	5.50	4.00	8.00	2.00	12.00
TOLERANCE	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1

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	$\phi 180$	60.00	R32.00	R86.50	R30.00	$\phi 13.00$	13.20	16.50
TOLERANCE	± 2	± 1	± 1	± 1	± 1	± 1	± 1	± 1