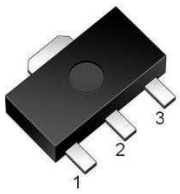
GENERAL PURPOSE TRANSISTOR

REPLACEMENT TYPE : 2SC4548

FEATURES

- Small Flat Package
- High Breakdown Voltage
- Excellent h_{FE} Linearity



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_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current-Continuous	I_C	200	mA
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	250	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

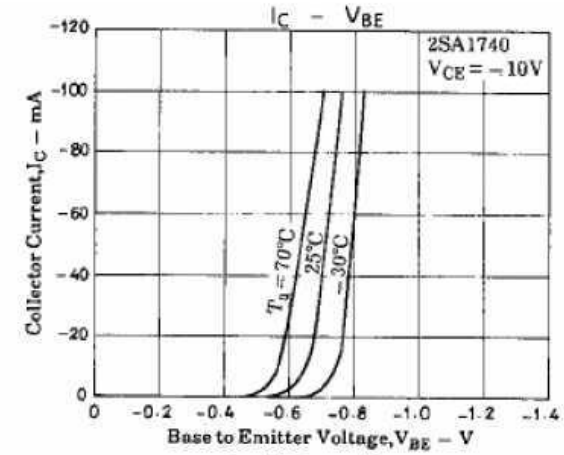
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

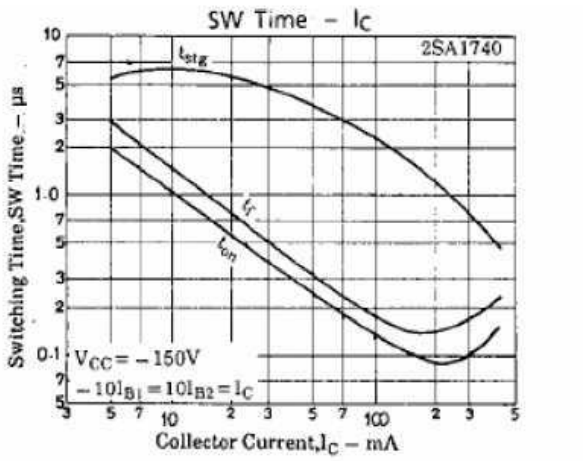
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V_{CBO}	I_C=10uA,I_E=0	400			V
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=1mA,I_B=0	400			V
Emitter-Base Breakdown Voltage	V_{EBO}	I_E=10uA,I_C=0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=300V,I_E=0			0.1	uA
Emitter Cut-off Current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	uA
DC Current Gain	h_{FE}	V_{CE}=10V,I_C=50mA	60		200	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=50mA ,I_B=5mA			0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$)	I_C=50mA,I_B=5mA			1	V
Transition Frequency	f_T	V_{CE}=30V,I_C=10mA		70		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=30V, I_E=0, f=1MHz		4		pF

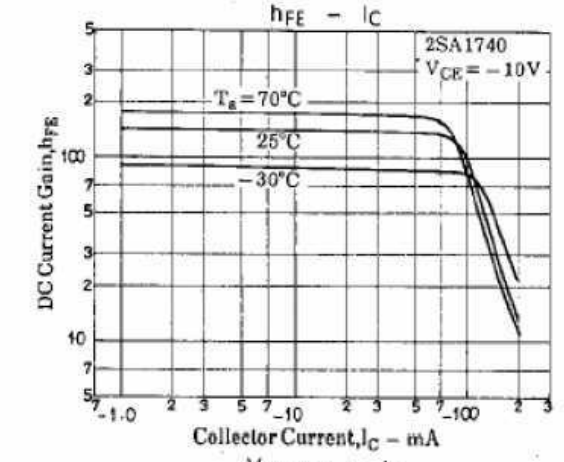
CLASSIFICATION OF h_{FE}

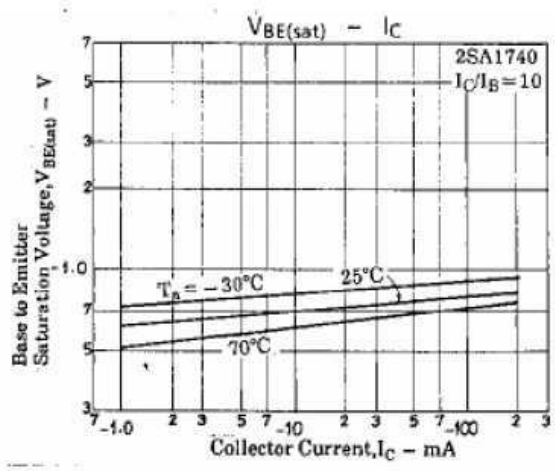
Rank	D	E
Range	60-120	100-200
Marking	CN	

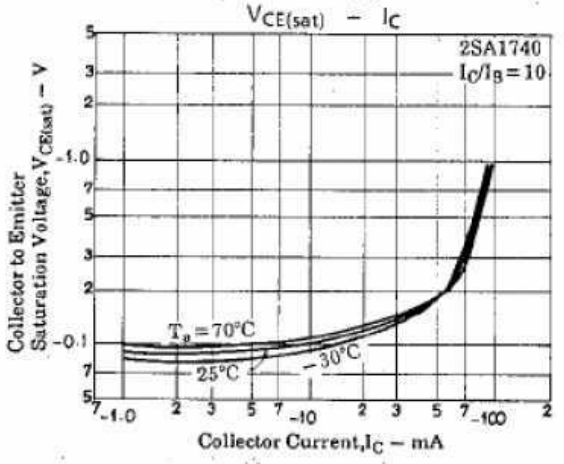
Typical Characteristics



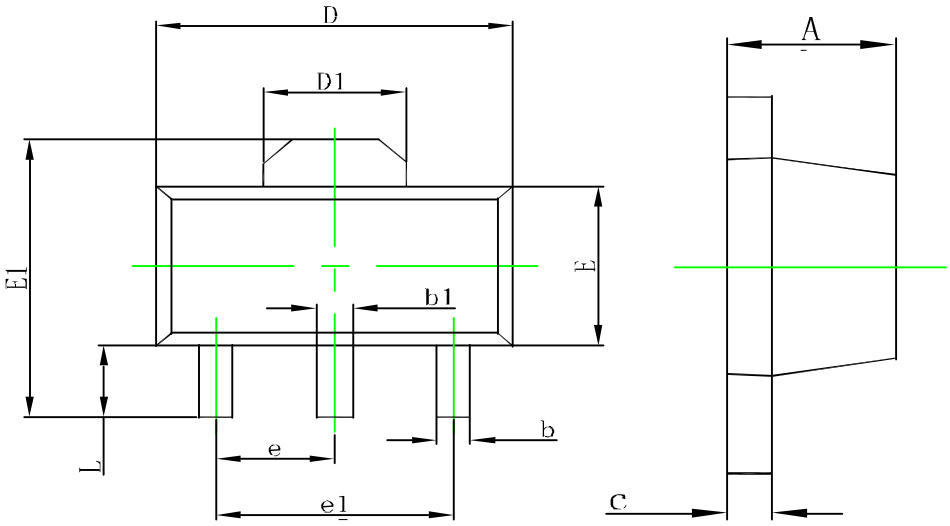






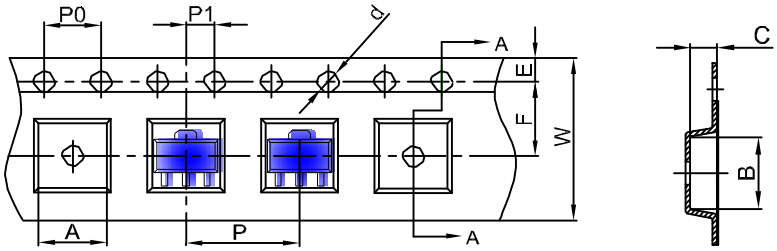


SOT-89 Package Outline Dimensions



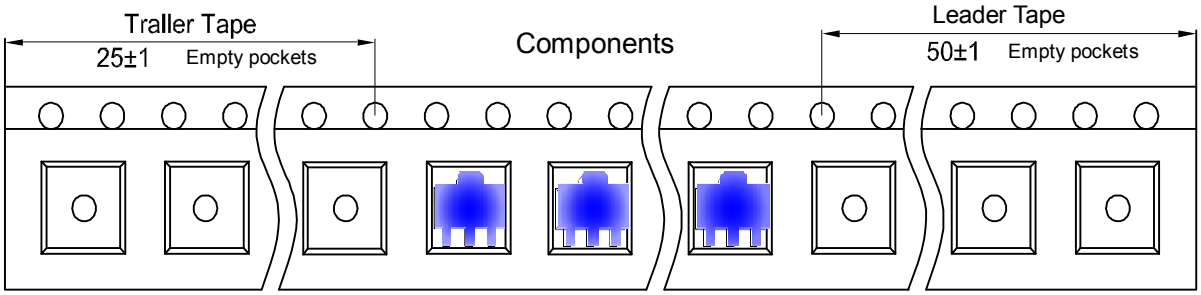
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550REF.		0.061REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP.		0.060TYP.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

SOT-89 Tape and Reel

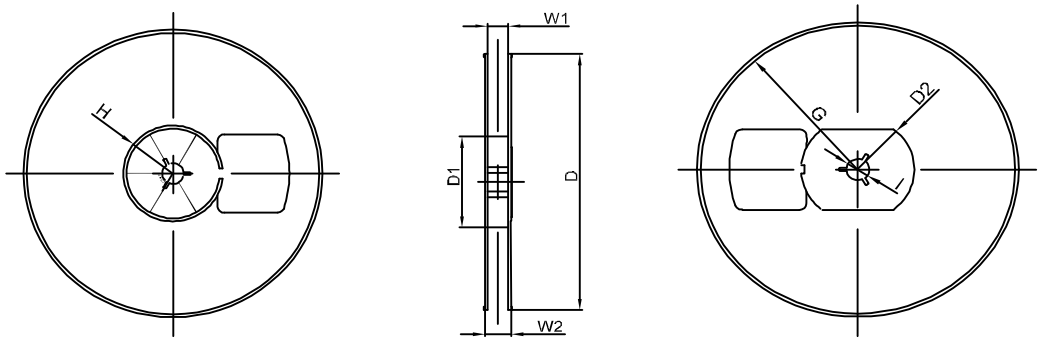


	DIMENSIONSAREINMILLIMETER									
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOT-89	4.85	4.45	1.85	ϕ1.50	1.75	5.50	4.00	8.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOT-89 Tape Leader and Trailer



SOT-89 Reel



	DIMNSIONSAREINMILLIMETERE							
REELOPTION	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