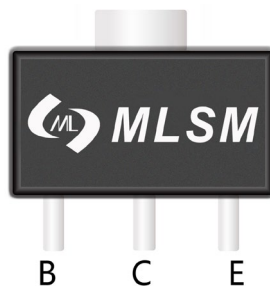
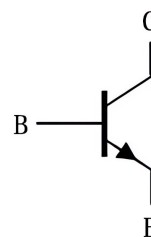


Features

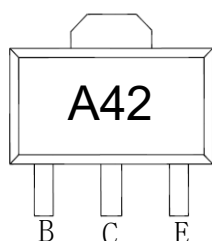
- Low Collector-Emitter Saturation Voltage
- High Breakdown Voltage



SOT-89-3L top view



Schematic diagram



Marking and pin assignment



Halogen-Free

Maximum Ratings (Ta=25°C unless otherwise noted)

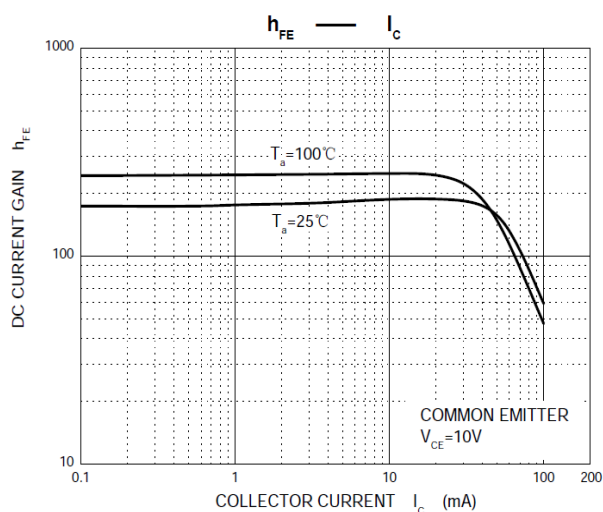
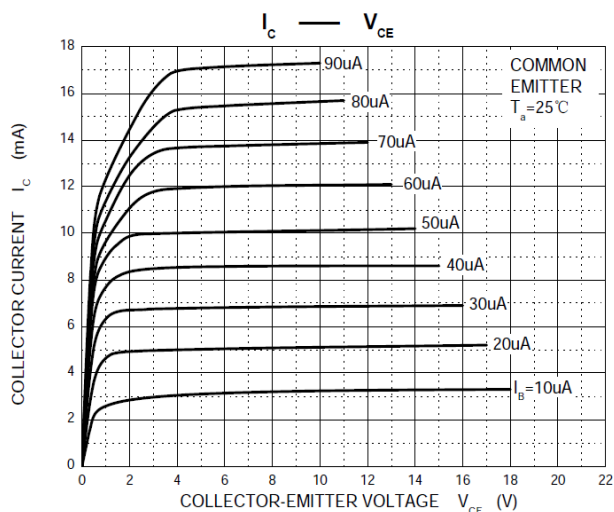
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	310	V
V_{CEO}	Collector-Emitter Voltage	305	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	200	mA
I_{CM}	Collector Current -Pulsed	500	mA
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

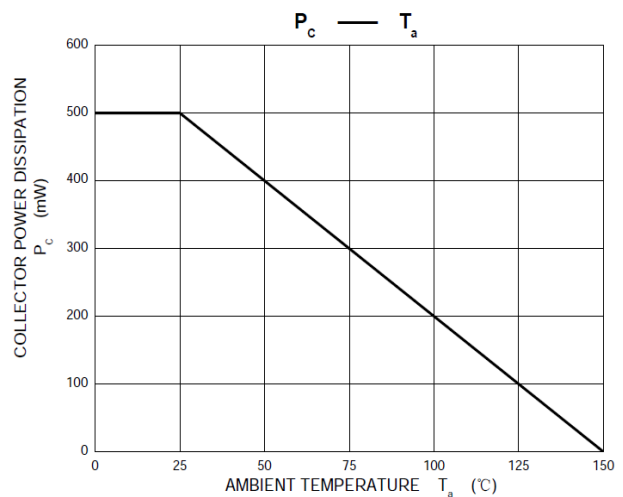
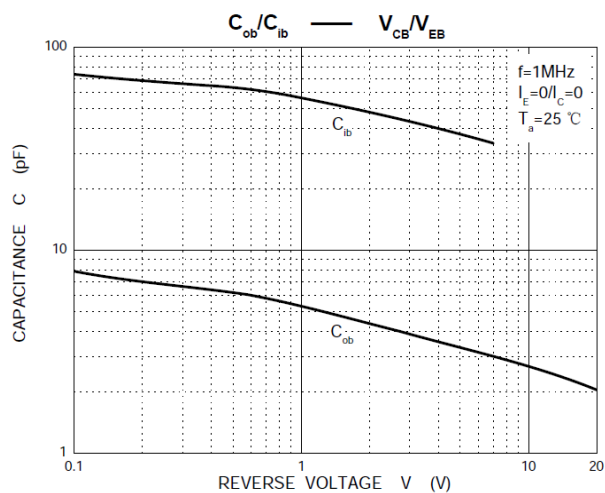
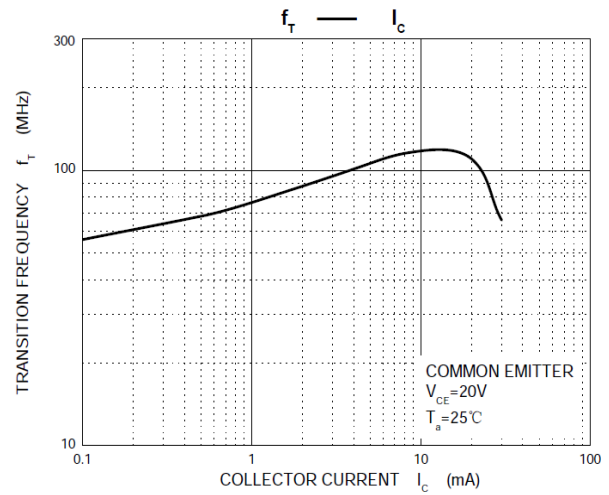
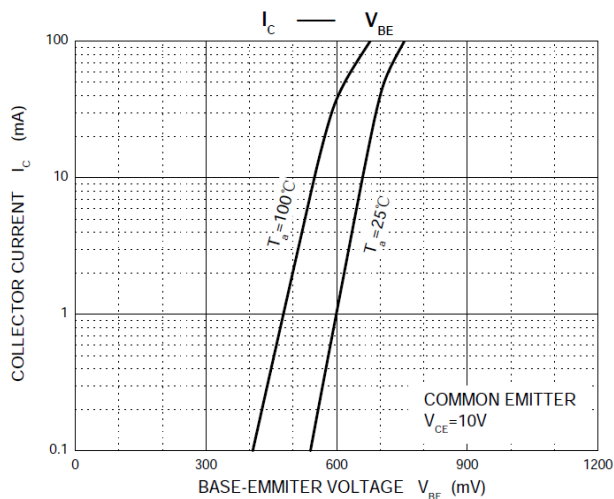
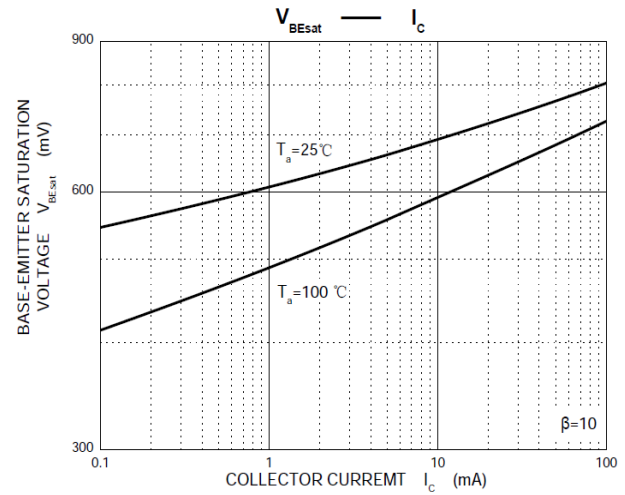
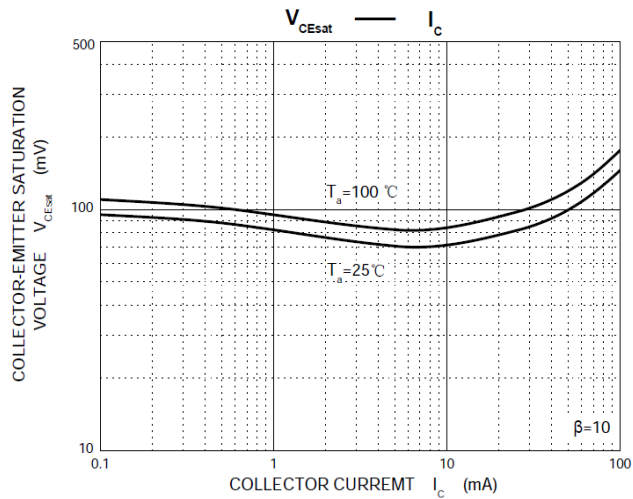
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
A42	SOT-89-3L	A42	1,000	10,000	40,000	7"reel

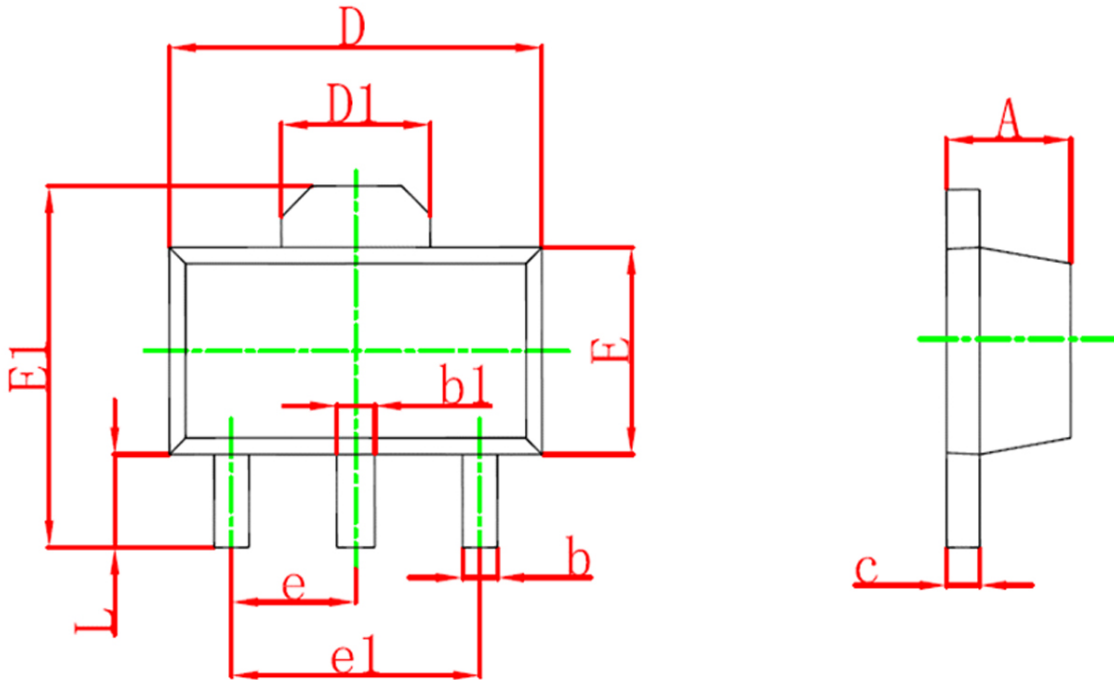
Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =100μA, I _E =0	310	--	--	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA, I _B =0	305	--	--	V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =100μA, I _C =0	5	--	--	V
I _{CBO}	Collector cut-off current	V _{CB} =200V , I _E =0	--	--	0.25	μA
I _{CEX}		V _{CE} =100V, V _X =5V	--	--	5	μA
		V _{CE} =300V, V _X =5V	--	--	10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V , I _C =0	--	--	0.1	μA
H _{FE(1)}	DC current gain	V _{CE} =10V, I _C =1mA	60	--	--	
H _{FE(2)}		V _{CE} =10V, I _C =10mA	100	--	300	
H _{FE(3)}		V _{CE} =10V, I _C =30mA	75	--	--	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =20mA, I _B =2mA	--	--	0.2	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =20mA, I _B =2mA	--	--	0.9	V
f _T	Transition frequency	V _{CE} =20V, I _C =10mA, f=30MHz	50	--	--	MHz

Typical Characteristics




SOT-89-3L Package information



Symbol	Dimensions in Millimeters(mm)		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	1.550 REF		0.061 REF	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP		0.060 TYP	
e1	3.000 TYP		0.118 TYP	
L	0.900	1.200	0.035	0.047