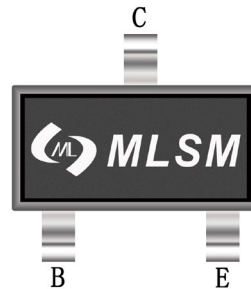


Features

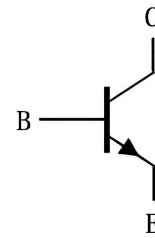
- High Voltage and Current
- High DC Current Gain
- Complementary to 2SC4738
- Small Package

Applications

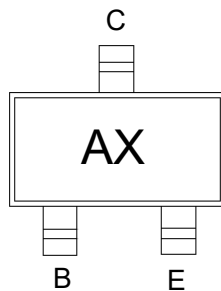
- General Purpose Amplification



SOT-523 top view



Schematic diagram



Marking and pin assignment

X:Rank



Halogen-Free

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	50	mA
P_C	Collector Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	833	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

Ordering Information (Example)

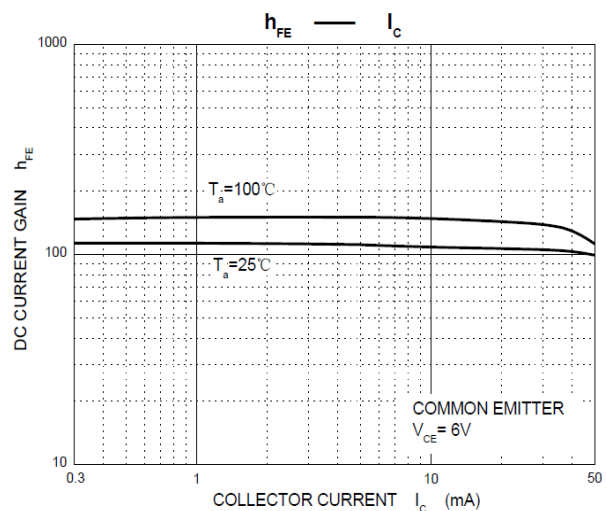
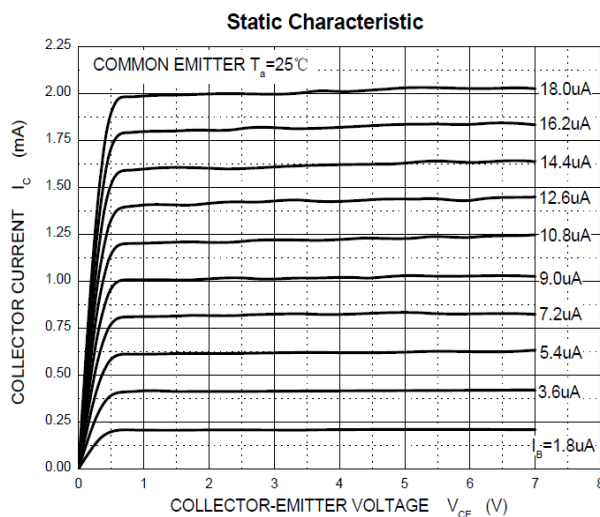
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
2SC4618	SOT-523	AN/AP/AQ	3,000	45,000	180,000	7"reel

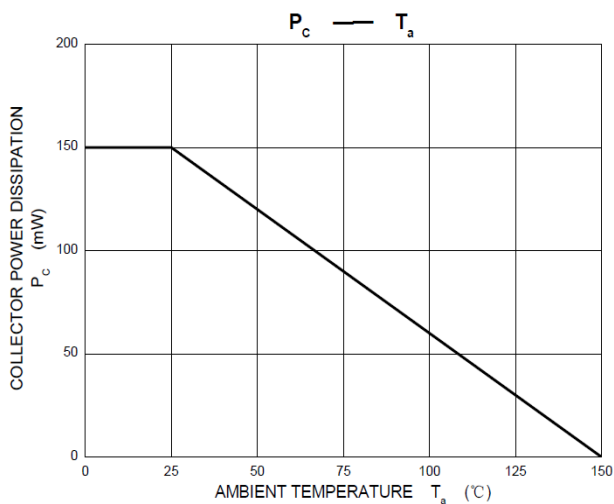
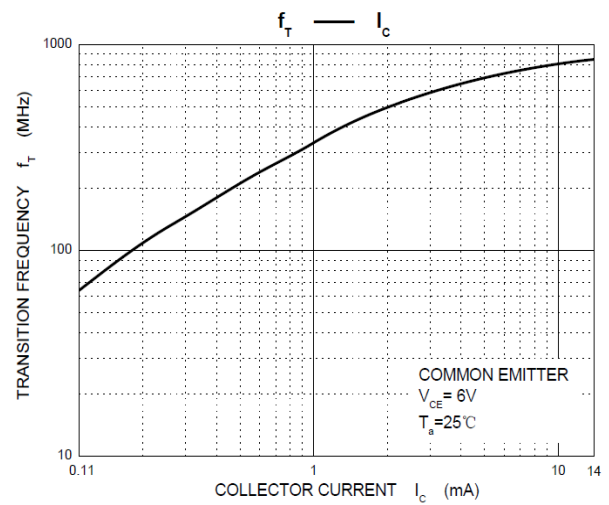
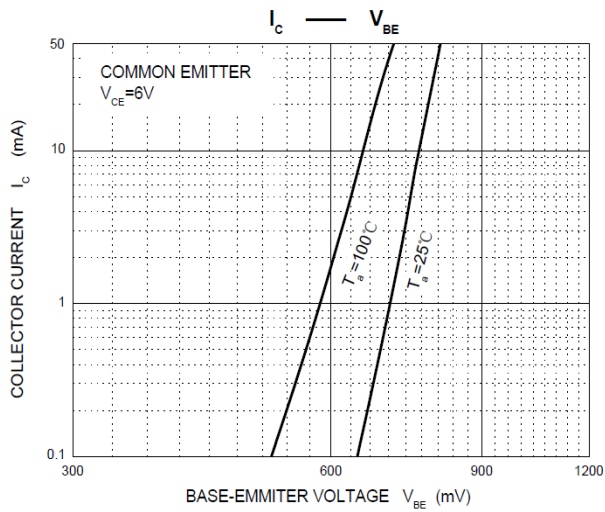
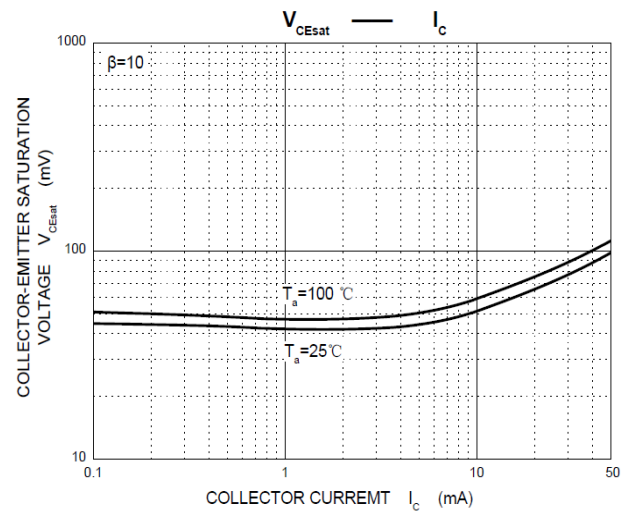
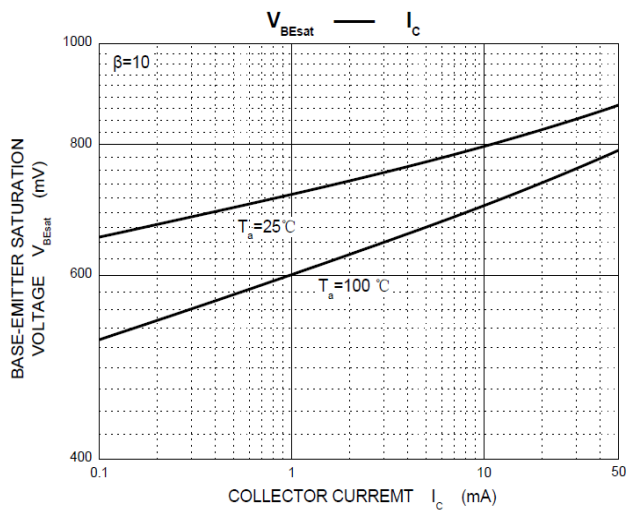
Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\mu A, I_E=0$	40	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1mA, I_B=0$	25	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=50\mu A, I_C=0$	5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB}=24V, I_E=0$	--	--	500	nA
I_{EBO}	Emitter cut-off current	$V_{EB}=3V, I_C=0$	--	--	500	nA
H_{FE}	DC current gain	$V_{CE}=6V, I_C=1mA$	56	--	270	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=10mA, I_B=1mA$	--	--	0.3	V
f_T	Transition frequency	$V_{CE}=6V, I_C=1mA, f=100MHz$	150	--	--	MHz
C_{ob}	Collector output capacitance	$V_{CB}=6V, I_E=0, f=1MHz$	--	--	2.2	pF

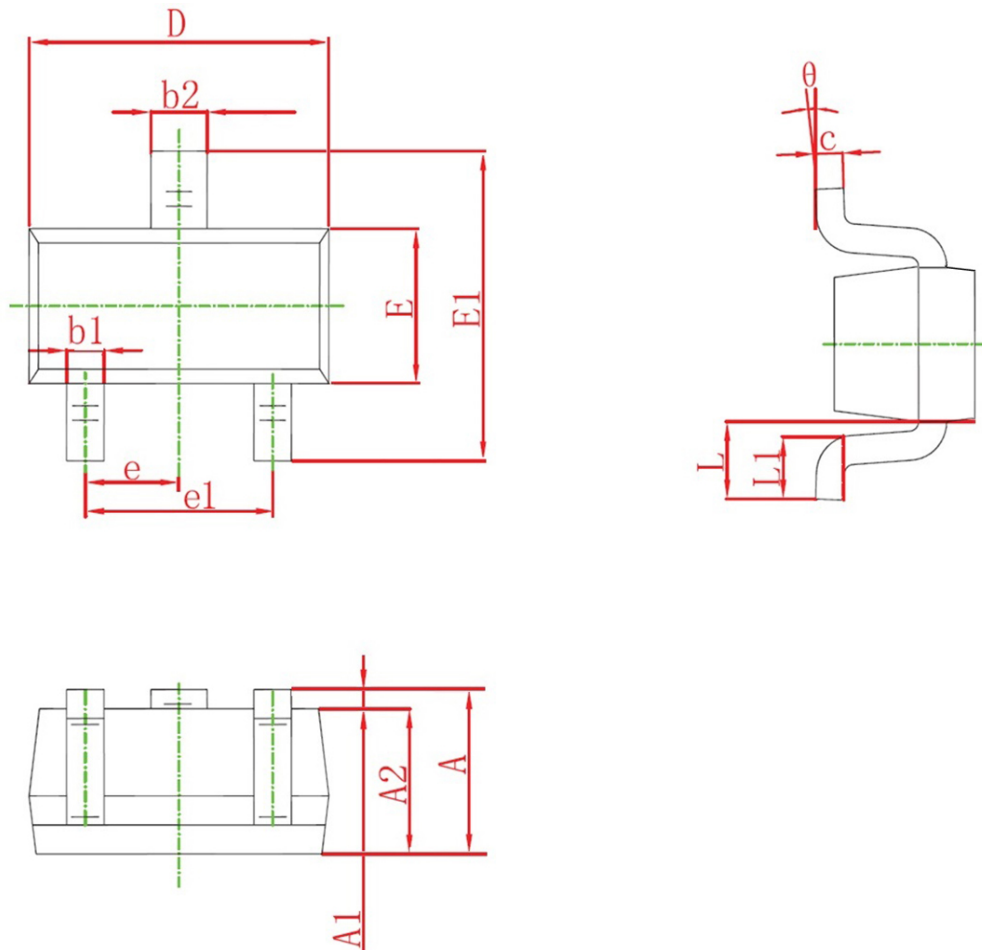
Classification of h_{FE}

Rank	N	P	Q
Marking	AN	AP	AQ
Range	56-120	82-180	120-270

Typical Characteristics




SOT-523 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500TYP		0.020TYP	
e1	0.900	1.100	0.035	0.043
L	0.400REF		0.016REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°