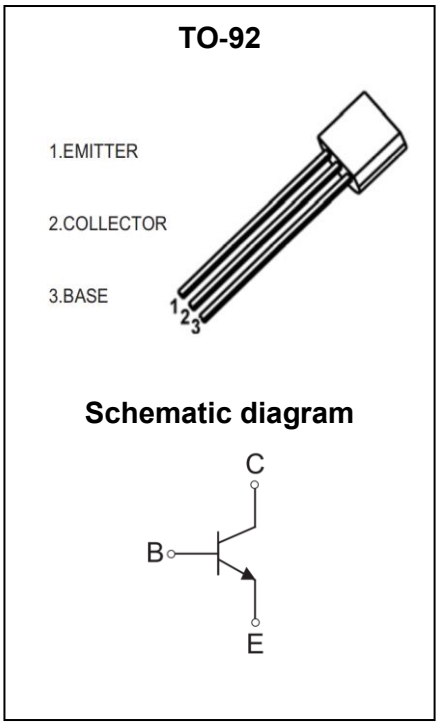
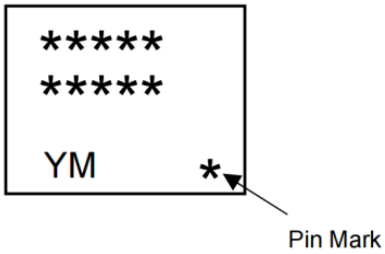
2SC1815 Transistor(NPN)



Feature

- For Switching and Amplifier Applications
- Low C_{ob}, C_{ob}=2.0pF (Typ.)

Marking:



" ********** " = Part No.
"YM" = Date Code Marking
"Y" = Year
"M" = Month
Font type: Arial

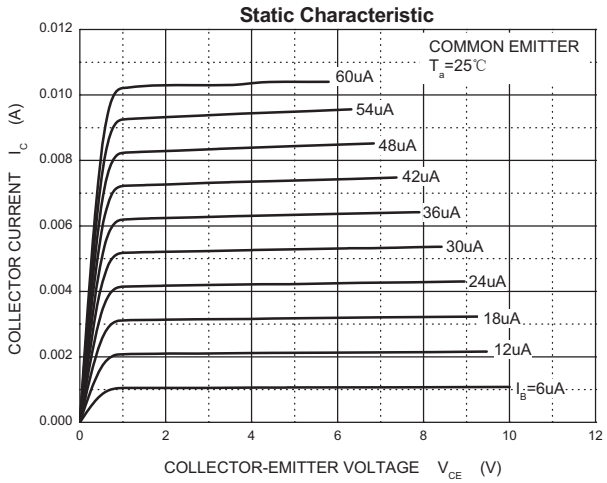
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

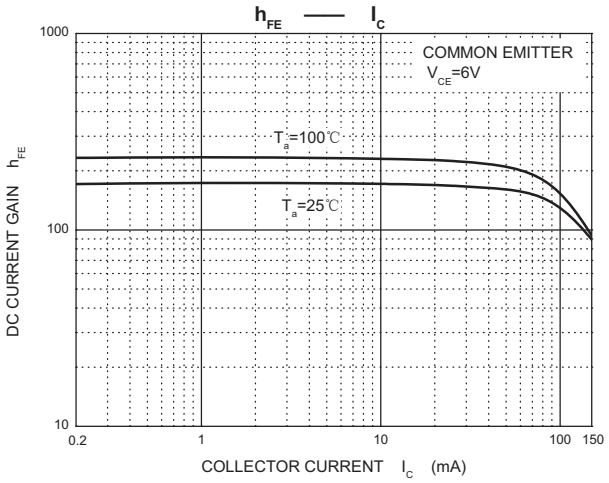
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	150	mA
Base Current	I_B	50	mA
Power Dissipation	P_d	400	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	312	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

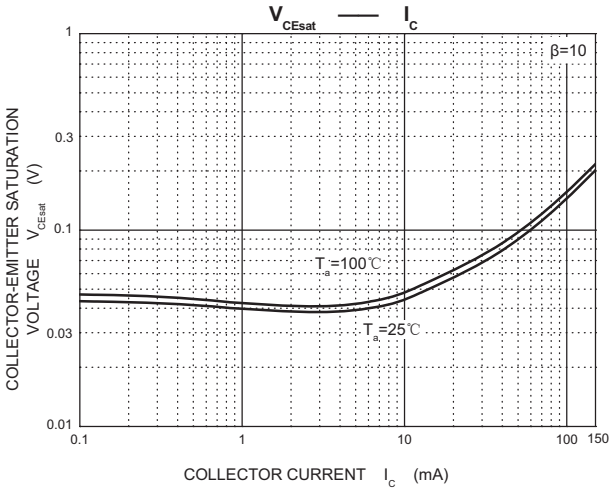
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise noted)

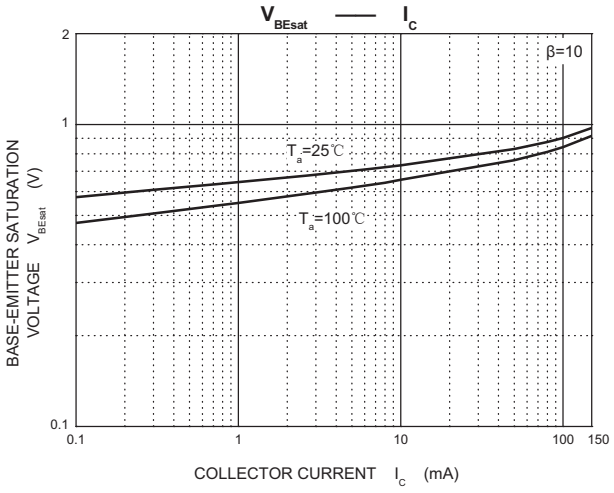
Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage		$V_{(BR)CBO}$	I_C=100μA ,I_E=0	60			V
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	I_C=1mA , I_B=0	50			V
Emitter-base breakdown voltage		$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current		I_{CBO}	V_{CB}=60V, I_E=0			0.1	μA
Emitter cut-off current		I_{EBO*}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	O	h_{FE}	V_{CE}=6V, I_C=2mA	70		140	
	Y			120		240	
	G			200		400	
	L			350		700	
			V_{CE}=6V, I_C=150mA	25			
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=100mA, I_B= 10mA			0.25	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C=100mA, I_B= 10mA			1.0	V
Transition frequency		f_T	V_{CE}=10V, I_C=1mA	80			MHZ
Collector output capacitance		C_{ob}	V_{CB}=10V, f=1MHz		2.0		pF

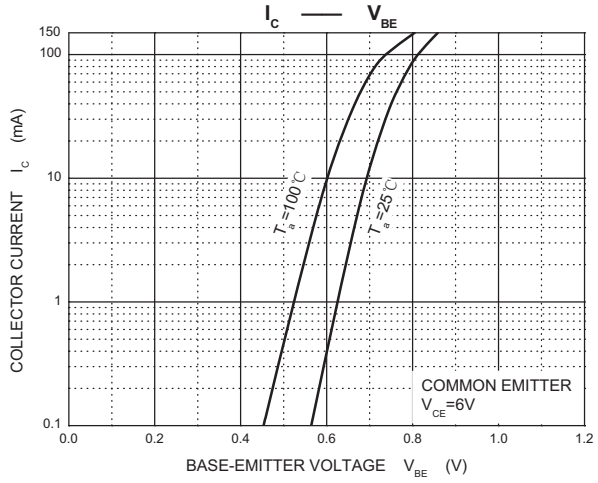
Typical Characteristics

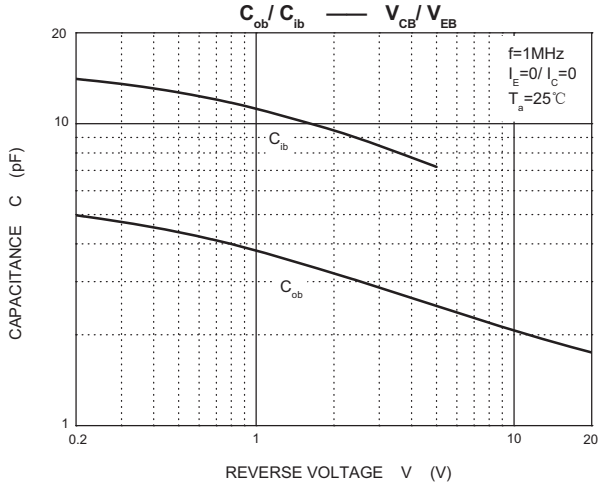




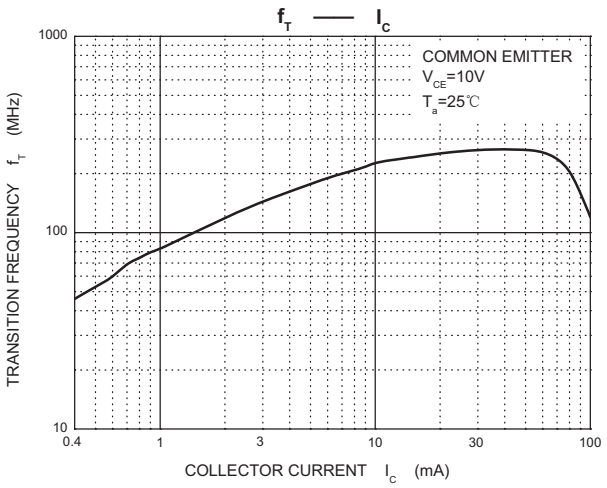


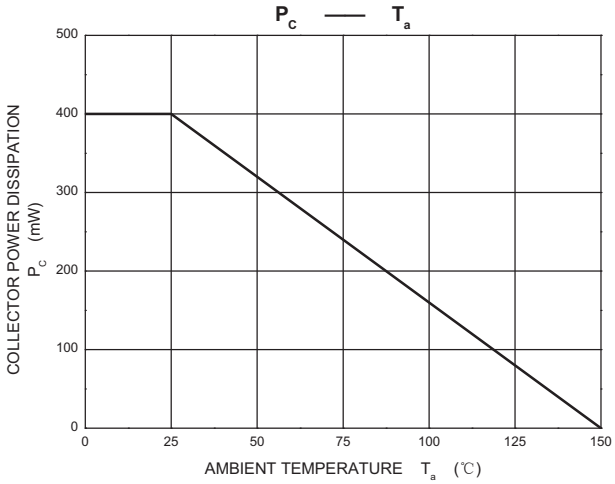




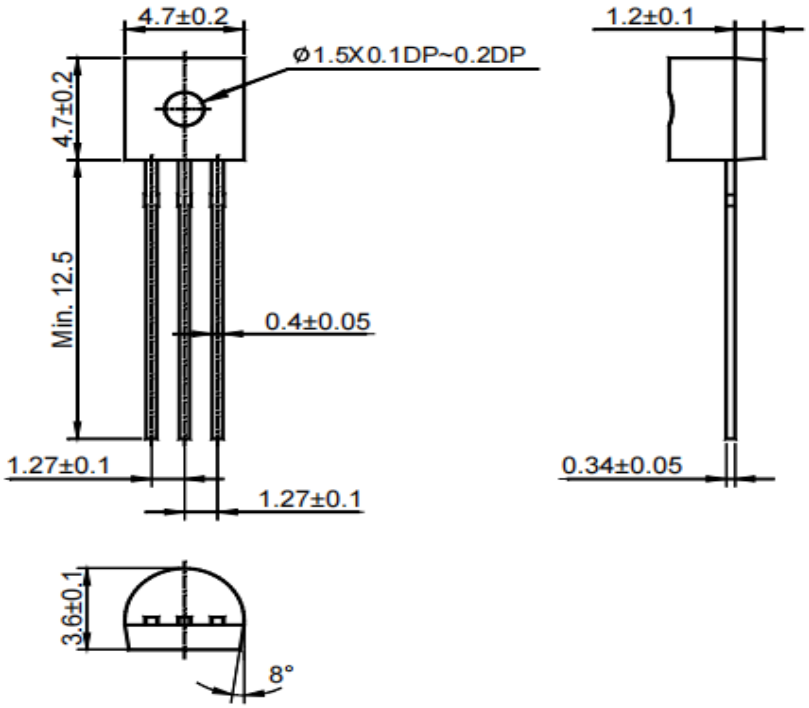


Typical Characteristics

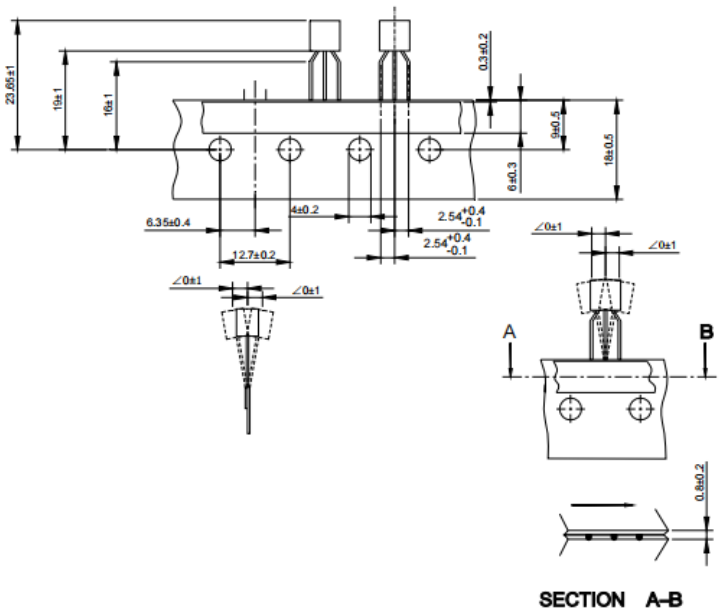




TO-92 Package Information



TO-92 Ammo-Pack Outline (Dimensions in millimeters)



SECTION A-B