

NPN Transistors

2SC3618

■ Features

- Collector Current Capability $I_C=0.7A$
- Collector Emitter Voltage $V_{CE0}=25V$

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	25	V
Collector - Emitter Voltage	V_{CE0}	25	
Emitter - Base Voltage	V_{EB0}	15	
Collector Current - Continuous	I_C	0.7	A
Collector Current - Pulse (Note.1)	I_{CP}	1	
Collector Power Dissipation	P_C	2	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

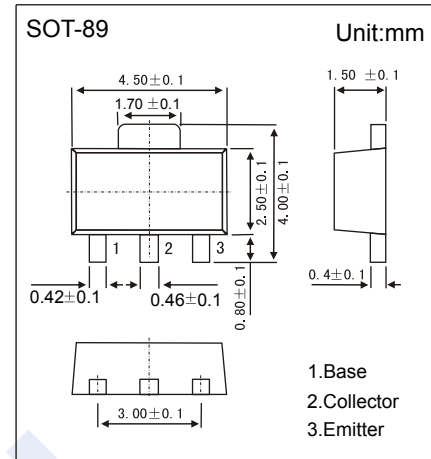
Note.1 : $PW \leq 10ms, Duty\ Cycle \leq 50\%$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu A, I_E = 0$	25			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 mA, I_B = 0$	25			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_C = 0$	15			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 25 V, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 10V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 300 mA, I_B = 3mA$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 300 mA, I_B = 3mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2V, I_C = 300mA$	800		3200	
		$V_{CE} = 2V, I_C = 500mA$	640			
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		10		pF
Transition frequency	f_T	$V_{CE} = 5V, I_E = -300mA$	150			MHz

■ Classification of $h_{FE}(1)$

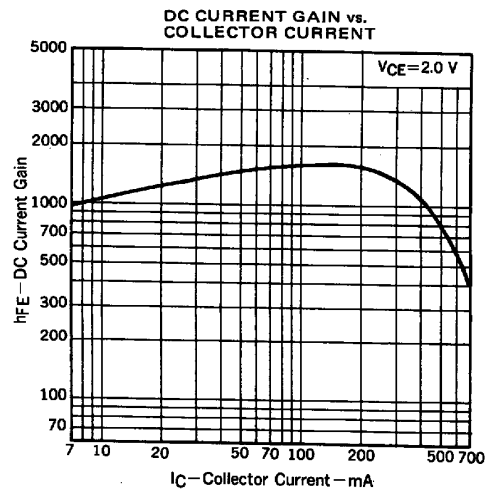
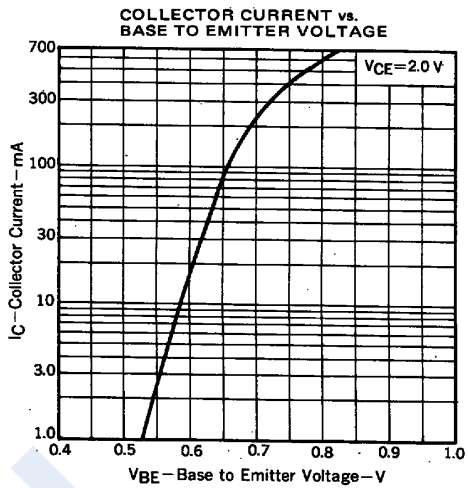
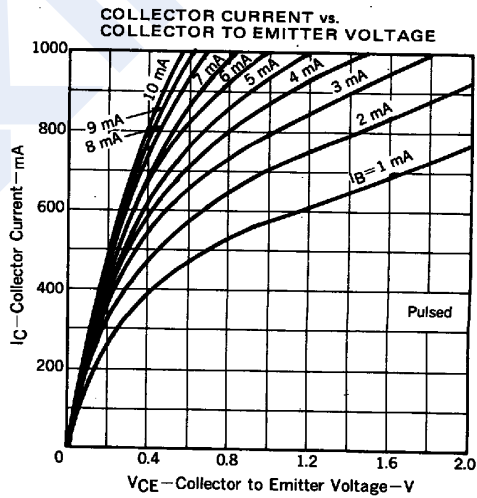
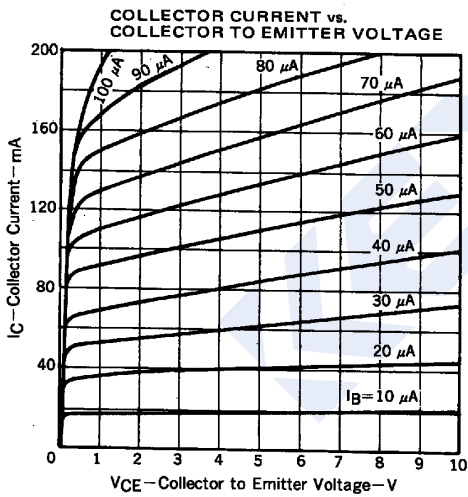
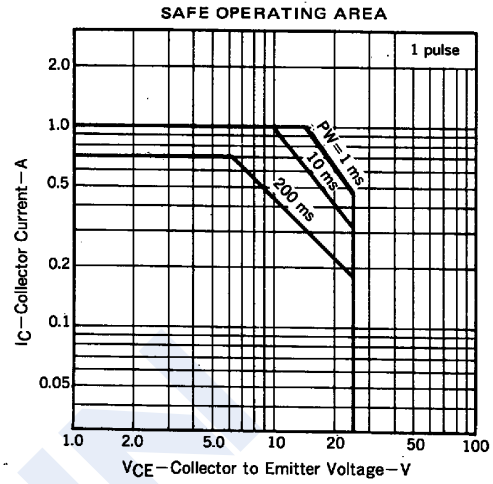
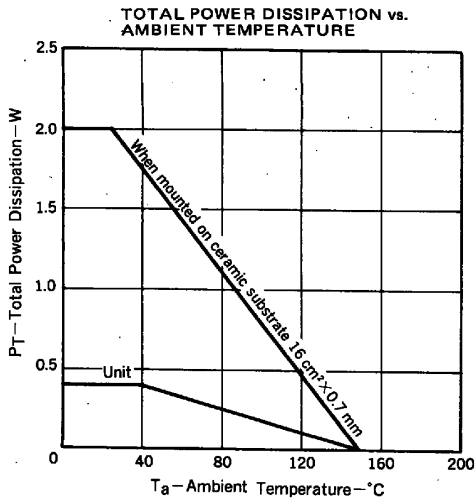
Type	2SC3618-M	2SC3618-L	2SC3618-K
Range	800-1600	1200-2400	2000-3200
Marking	UM	UL	UK



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■ Typical Characteristics



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