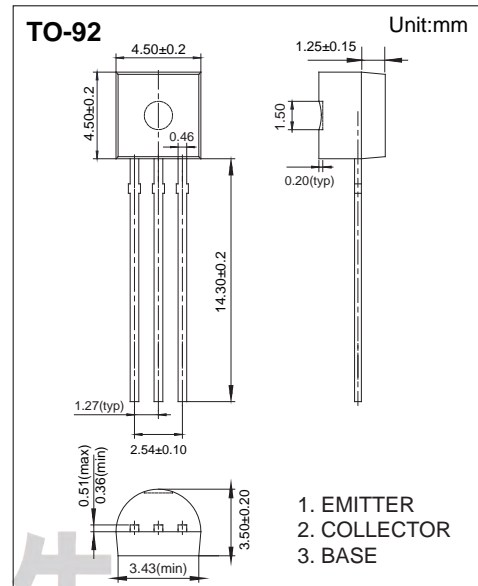


NPN Transistors M28S

■ Features

- Collector current: $I_C=1A$
- High DC Current Gain and Large Current Capability



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	40	V
Collector - Emitter Voltage	V_{CE0}	20	
Emitter - Base Voltage	V_{EB0}	6	
Collector Current - Continuous	I_C	1	A
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	200	$^\circ C/W$
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	

Transistor

NPN Transistors M28S

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E =0	40			V
Collector- emitter breakdown voltage	V _{CE0}	I _C = 1 mA, I _B =0	20			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C =0	6			
Collector cut-off current	I _{CB0}	V _{CB} = 40 V, I _E =0			1	μA
Collector cut-off current	I _{CE0}	V _{CE} = 20 V, I _B =0			5	
Emitter cut-off current	I _{EB0}	V _{EB} = 5V, I _C =0			0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =600 mA, I _B = 20mA			0.55	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =600 mA, I _B = 20mA			1.2	
DC current gain	h _{FE(1)}	V _{CE} = 1V, I _C = 1mA	290			
	h _{FE(2)}	V _{CE} = 1V, I _C = 100mA	300		1000	
	h _{FE(3)}	V _{CE} = 1V, I _C = 300mA	300			
	h _{FE(4)}	V _{CE} = 1V, I _C = 500mA	300			
Transition frequency	f _T	V _{CE} = 10V, I _E =50mA, f=30MHz	100			MHz

■ Classification of h_{FE(2)}

Rank	B	C	D
Range	300-550	500-700	650-1000