

NPN small signal transistor

MMST6428

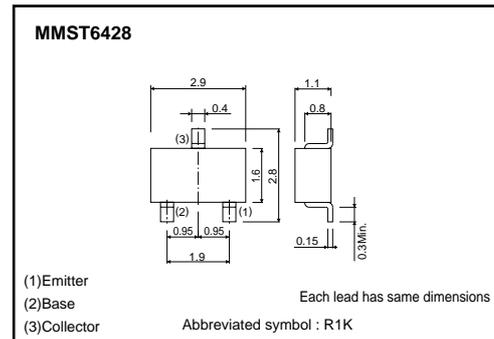
●Features

1) Ideal for switching and AF amplifier applications.

●Packaging specifications

Type	Package	Taping
	Code	T146
	Basic ordering unit (pieces)	3000
MMST6428		○

●Dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	60	V
Collector-emitter voltage	V_{CE0}	50	V
Emitter-base voltage	V_{EB0}	6	V
Collector current	I_c	0.2	A
Collector power dissipation	P_c	0.2	W
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to 125	°C

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CE0}	50	-	-	V	$I_c = 1\text{mA}$
Emitter-base breakdown voltage	BV_{CB0}	60	-	-	V	$I_c = 100\mu\text{A}$
Collector-base cutoff current	I_{CB0}	-	-	0.1	μA	$V_{CB} = 30\text{V}$
Collector-emitter cutoff current	I_{CE0}	-	-	0.1	μA	$V_{CE} = 30\text{V}$
Emitter-base cutoff current	I_{EB0}	-	-	0.1	μA	$V_{EB} = 5\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)1}$	-	-	0.2	V	$I_c/I_B = 10\text{mA}/0.5\text{mA}$
	$V_{CE(sat)2}$	-	-	0.6	V	$I_c/I_B = 100\text{mA}/5\text{mA}$
Base-emitter voltage	$V_{BE(on)}$	0.56	-	0.66	V	$V_{CE} = 5\text{V}, I_c = 1\text{mA}$
DC current transfer ratio	h_{FE}	250	-	-	-	$V_{CE} = 5\text{V}, I_c = 0.01\text{mA}$
		250	-	-	-	$V_{CE} = 5\text{V}, I_c = 0.1\text{mA}$
		250	-	650	-	$V_{CE} = 5\text{V}, I_c = 1\text{mA}$
		250	-	-	-	$V_{CE} = 5\text{V}, I_c = 10\text{mA}$
Transition frequency	f_T	100	-	700	MHz	$V_{CE} = 5\text{V}, I_c = 1\text{mA}, f = 100\text{MHz}$
Collector output capacitance	C_{ob}	-	-	3.0	pF	$V_{CB} = 10\text{V}, I_E = 0\text{A}, f = 1\text{MHz}$

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