

Miniature Transistors

General purpose

TYPE NO. NPN PNP	Maximum Ratings				Electrical Characteristics @ T _A = 25°C						CASE
	P _D @ T _A = 25°C	BV _{CBO}	LV _{CEO}	BV _{EBO}	h _{FE} @ V _{CE} @ I _C min./max.	V _{CE(sat)} @ I _C /I _B max.	C _{ob} max.	f _T @ I _C min.	NF @ f max.		
MT 146	50mW	20V	20V	4V	80/550 @ 0.5V @ 0.2mA	0.18V (V _{CEK})	4.0pF	100MHz* @ 2.0mA	2dB* WB	MT-42	
MT 121	50mW	5V	5V	5V	75/900 @ 0.5V @ 0.5mA	0.20V @ 10/0.5mA	11.0pF	250MHz* @ 10.0mA	5dB @ 1kHz	MT-42	
MT 1075	50mW	75V	75V	4V	20/ - @ 10.0V @ 10.0mA	1.00V @ 5/0.5mA	4.0pF	60MHz @ 1.0mA	-	MT-42	
MT 1100	50mW	100V	100V	4V	20/ - @ 10.0V @ 10.0mA	1.00V @ 5/0.5mA	4.0pF	60MHz @ 1.0mA	-	MT-42	
MT 4101	50mW	20V	20V	5V	70/300 @ 5.0V @ 1.0mA	0.25V @ 10/0.5mA	3.5pF	60MHz @ 0.5mA	4dB @ 1kHz	MT-42	
MT 4102	50mW	20V	20V	5V	200/600 @ 5.0V @ 1.0mA	0.25V @ 10/0.5mA	3.5pF	60MHz @ 0.5mA	3dB @ 1kHz	MT-42	
MT 4103	50mW	20V	20V	4V	100/600 @ 5.0V @ 1.0mA	0.25V @ 10/0.5mA	3.5pF	60MHz @ 0.5mA	4dB @ 1kHz	MT-42	
MT 4104	50mW	25V	25V	4V	50/500 @ 5.0V @ 1.0mA	0.30V @ 1/0.1mA	3.0pF	40MHz @ 1.0mA	4dB @ 1kHz	MT-42	
MT 6001	50mW	30V	30V	5V	30/200 @ 1.0V @ 50.0mA	0.30V @ 50/2.5mA	10.0pF	-	-	MT-42	
MT 6002	50mW	30V	30V	5V	75/300 @ 1.0V @ 50.0mA	0.30V @ 50/2.5mA	10.0pF	-	-	MT-42	
MT 6003	50mW	20V	20V	4V	30/300 @ 5.0V @ 50.0mA	0.35V @ 50/5.0mA	12.0pF	-	-	MT-42	
MT 200	50mW	20V	20V	5V	50/400 @ 0.5V @ 0.2mA	0.18V (V _{CEK})	12.0pF	90MHz* @ 2.0mA	2dB* WB	MT-42	
MT 0404	50mW	25V	25V	4V	30/300 @ 1.0V @ 50.0mA	0.30V @ 50/5.0mA	12.0pF	-	-	MT-42	
MT 0404-1	50mW	40V	30V	5V	30/200 @ 1.0V @ 50.0mA	0.25V @ 50/2.5mA	10.0pF	-	-	MT-42	
MT 0404-2	50mW	40V	30V	5V	75/300 @ 1.0V @ 50.0mA	0.25V @ 50/2.5mA	10.0pF	-	-	MT-42	
MT 0411	50mW	20V	20V	5V	100/300 @ 5.0V @ 1.0mA	0.25V @ 10/0.5mA	5.0pF	40MHz @ 0.5mA	4dB @ 1kHz	MT-42	
MT 0412	50mW	20V	20V	5V	200/600 @ 5.0V @ 1.0mA	0.25V @ 10/0.5mA	5.0pF	40MHz @ 0.5mA	3dB @ 1kHz	MT-42	
MT 0413	50mW	20V	20V	4V	60/ - @ 5.0V @ 1.0mA	0.25V @ 10/0.5mA	8.0pF	40MHz @ 0.5mA	4dB @ 1kHz	MT-42	
MT 0414	50mW	20V	20V	4V	50/500 @ 5.0V @ 1.0mA	0.30V @ 1/0.1mA	9.0pF	40MHz @ 1.0mA	4dB @ 1kHz	MT-42	

WB = Wide Band

High frequency

TYPE NO. NPN PNP	Maximum Ratings				Electrical Characteristics @ T _A = 25°C						CASE
	P _D @ T _A = 25°C	BV _{CBO}	LV _{CEO}	BV _{EBO}	h _{FE} @ V _{CE} @ I _C min./max.	V _{CE(sat)} @ I _C /I _B max.	C _{ob} max.	f _T @ I _C min.	NF @ f max.		
MT 3001	50mW	30V	12V	3V	20/200 @ 10V @ 8mA	0.25V @ 10/0.1mA	1.85pF	600MHz @ 8mA	4dB* @ 60MHz	MT-42	
MT 3002	50mW	30V	12V	3V	20/200 @ 10V @ 8mA	0.25V @ 10/0.1mA	1.60pF	900MHz @ 8mA	4dB* @ 60MHz	MT-42	
MT 3011	50mW	20V	12V	2V	20/ - @ 10V @ 8mA	0.60V @ 10/0.1mA	1.70pF	600MHz @ 8mA	4dB* @ 60MHz	MT-42	
MT 0461	50mW	60V	50V	6V	50/200 @ 1V @ 10mA	0.15V @ 10/1.0mA	6.00pF	300MHz @ 10mA	6dB @ 1 kHz	MT-42	
MT 0462	50mW	50V	40V	6V	100/300 @ 1V @ 10mA	0.15V @ 10/1.0mA	6.00pF	300MHz @ 10mA	6dB @ 1 kHz	MT-42	

*Typical Value

High speed switching

TYPE NO. NPN PNP	Maximum Ratings				Electrical Characteristics @ T _A = 25°C						CASE
	P _D @ T _A = 25°C	BV _{CBO}	LV _{CEO}	BV _{EBO}	h _{FE} @ V _{CE} @ I _C min./max.	V _{CE(sat)} @ I _C /I _B max.	t _{on} t _{off} max.	C _{ob} max.	f _T @ I _C min.		
MT 9001	50mW	40V	15V	4.5V	40/120 @ 1V @ 10mA	0.25V @ 10/1.0mA	12ns 18ns	4pF	650MHz @ 10mA	MICROMIN	
MT 9002	50mW	30V	12V	4.5V	30/150 @ 1V @ 10mA	0.25V @ 10/1.0mA	15ns 20ns	4pF	650MHz @ 10mA	MICROMIN	
MT 9003	50mW	18V	12V	4.0V	25/200 @ 1V @ 10mA	0.40V @ 10/1.0mA	15ns 20ns	4pF	650MHz @ 10mA	MICROMIN	
MT 0491	50mW	30V	20V	5.0V	30/120 @ 1V @ 30mA	0.20V @ 30/3.0mA	25ns 35ns	4pF	700MHz @ 30mA	MICROMIN	
MT 0492	50mW	25V	16V	5.0V	50/150 @ 1V @ 30mA	0.20V @ 30/3.0mA	25ns 35ns	4pF	700MHz @ 30mA	MICROMIN	
MT 0493	50mW	15V	12V	5.0V	30/150 @ 1V @ 30mA	0.40V* @ 30/3.0mA	60ns 90ns	9pF	600MHz @ 50mA	MICROMIN	