





DEVICE MARKING , RESISTOR VALUES AND ORDERING INFORMATION

Device	Package	Marking	R1(K)	R2(K)	Shipping
MMUN5211V	SOT-563	7A	10	10	3000/Tape&Reel
MMUN5212V	SOT-563	7B	22	22	3000/Tape&Reel
MMUN5213V	SOT-563	7C	47	47	3000/Tape&Reel
MMUN5214V	SOT-563	7D	10	47	3000/Tape&Reel
MMUN5215V	SOT-563	7E	10	Ğ	

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted, common for Q_1 and Q_2,)(Continued)

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain					
at V_{CE} = 10 V, I_C = 5 mA	MMUN5211V	h_{FE}	35		

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted, common for Q_1 and Q_2,)(Continued)

Parameter		Symbol	Min.	Max.	Unit
Output Voltage (on)					
at V_{CC} = 5 V, V_B = 2.5 V, R_L = 1 KΩ	MMUN5211V	V_{OL}	-	0.2	V
	MMUN5212V	V_{OL}	-	0.2	V
	MMUN5214V	V_{OL}	-	0.2	V
	MMUN5215V	V_{OL}	-	0.2	V
	MMUN5216V	V_{OL}	-	0.2	V
	MMUN5230V	V_{OL}	-	0.2	V
	MMUN5231V	V_{OL}	-	0.2	V
	MMUN5232V	V_{OL}	-	0.2	V
	MMUN5233V	V_{OL}	-	0.2	V
	MMUN5234V	V_{OL}	-	0.2	V
	MMUN5235V	V_{OL}	-	0.2	V
	MMUN5238V	V_{OL}	-	0.2	V
at V_{CC} = 5 V, V_B = 3.5 V, R_L = 1 KΩ	MMUN5213V	V_{OL}	-	0.2	V
at V_{CC} = 5 V, V_B = 5 V, R_L = 1 KΩ	MMUN5241V	V_{OL}	-	0.2	V
Output Voltage (off)					
at V_{CC} = 5 V, V_B = 0.5 V, R_L = 1 KΩ		V_{OH}	4.9	-	V
at V_{CC} = 5 V, V_B = 0.05 V, R_L = 1 KΩ	MMUN5230V	V_{OH}	4.9	-	V
at V_{CC} = 5 V, V_B = 0.25 V, R_L = 1 KΩ	MMUN5215V	V_{OH}	4.9	-	V
	MMUN5216V	V_{OH}	4.9	-	V
	MMUN5233V	V_{OH}	4.9	-	V
	MMUN5238V	V_{OH}	4.9	-	V
Input Resistor	MMUN5211V	R1	7	13	KΩ
	MMUN5212V	R1	15.4	28.6	KΩ
	MMUN5213V	R1	32.9	61.1	KΩ
	MMUN5214V	R1	7	13	KΩ
	MMUN5215V	R1	7	13	KΩ
	MMUN5216V	R1	3.3	6.1	KΩ
	MMUN5230V	R1	0.7	1.3	KΩ
	MMUN5231V	R1	1.5	2.9	KΩ
	MMUN5232V	R1	3.3	6.1	KΩ
	MMUN5233V	R1	3.3	6.1	KΩ
	MMUN5234V	R1	15.4	28.6	KΩ
	MMUN5235V	R1	1.54	2.86	KΩ
	MMUN5238V	R1	1.54	2.88	KΩ
	MMUN5241V	R1	70	130	KΩ
Resistor Ratio	MMUN5211V/MMUN5212V/MMUN5213V	R1/R2	0.8	1.2	-
	MMUN5214V	R1/R2	0.17	0.25	-
	MMUN5215V/MMUN5216V/MMUN5238V	R1/R2	-	- 2	-

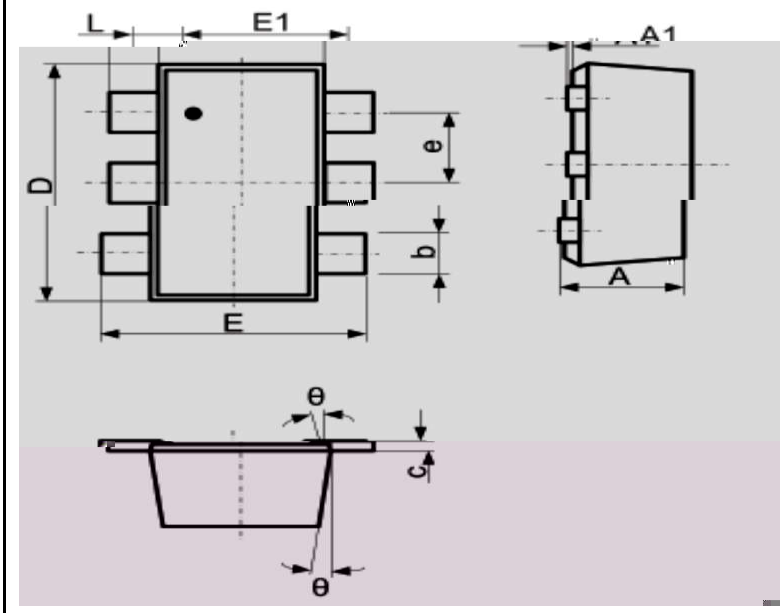
TYPICAL ELECTRICAL CHARACTERI

Ordering information

Package	Packing Description	Packing Quantity
SOT-563	Tape/Reel,7”reel	3000PCS/Reel 120000PCS/Carton

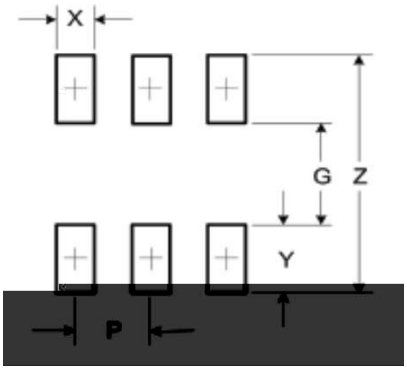
Package Dimensions

SOT-563



Dim.	Millimeter(mm)		Inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	-	0.050	-	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
θ	7°		7°	

The recommended mounting pad size



Dim.	Millimeter(mm)
	TYP
Z	1.91
G	0.89
P	TYP0.51
X	0.30
Y	0.51

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