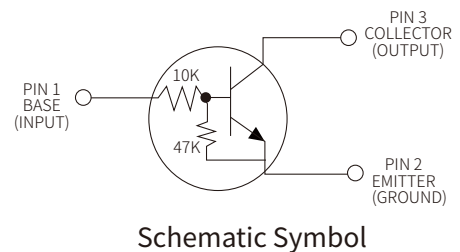
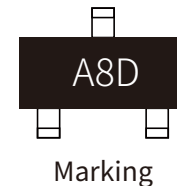


FEATURES

- This new series of digital transistors is designed to replace a single device and its external resistor bias network. The BRT (Bias Resistor Transistor) contains a single transistor with a monolithic bias network resistor. The BRT eliminates these individual components by integrating them into a single device. The sue of a BRT can reduce both system cost and board space. The device is housed in the SOT-23 package which is designed for low power surface mount applications
- Simplifies Circuit Design
- Reduces Board Space and Component Count
- The SOT-23 package can be soldered using wave or reflow. The modified gull-winged leads absorb thermal stress during soldering eliminating the possibility of damage to the die
- Meet AEC-Q101 Requirements



APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	
Collector Current	I_C	100	mA
Peak Collector Current	I_{CM}	200	mA
Total Power Dissipation @ $T_A=25^{\circ}\text{C}$ (Note 1.) Derate above 25°C	P_C	246	mW
		1.5	$^{\circ}\text{C}/\text{W}$
Thermal Resistance From Junction To Ambient (Note 1.)	$R_{\theta JA}$	508	$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	150	$^{\circ}\text{C}$
Maximum Temperature for Soldering Purposes, Time in Solder Bath	T_{STG}	-55~+150	$^{\circ}\text{C}$

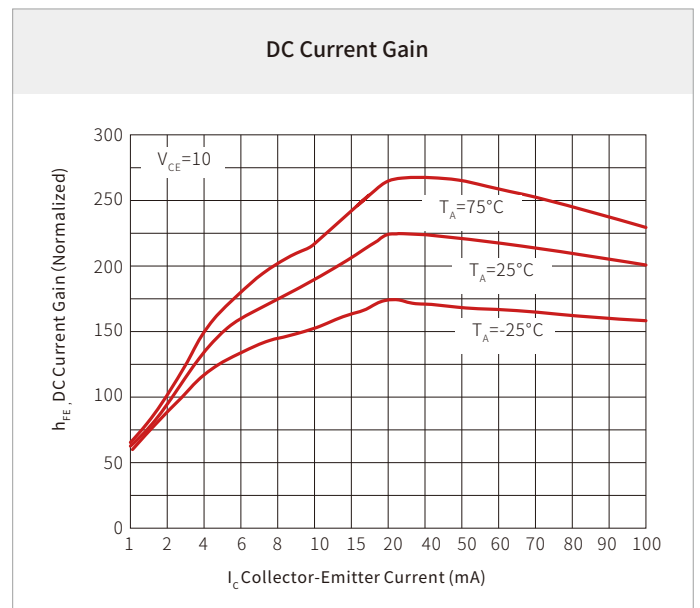
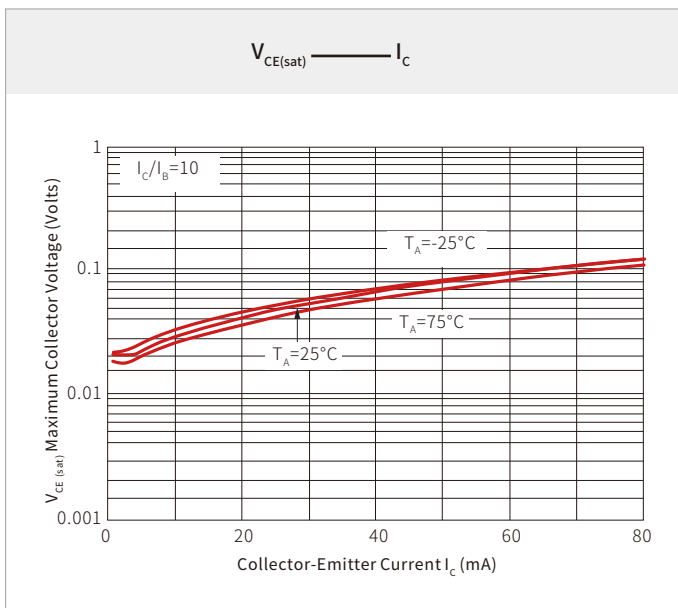
1, Device mounted on a FR-4 glass epoxy printed circuit board using the minimum recommended footprint

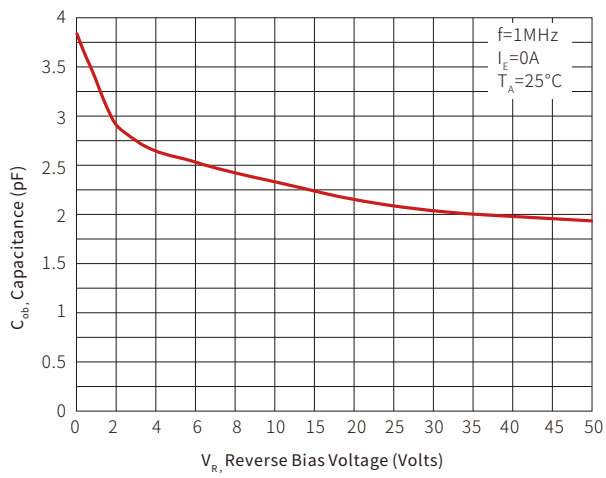
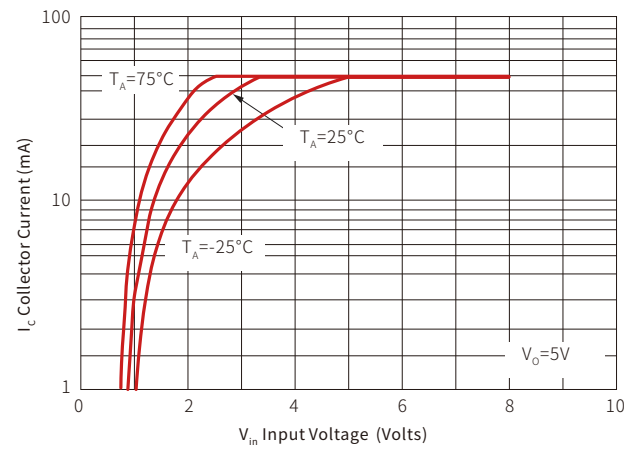
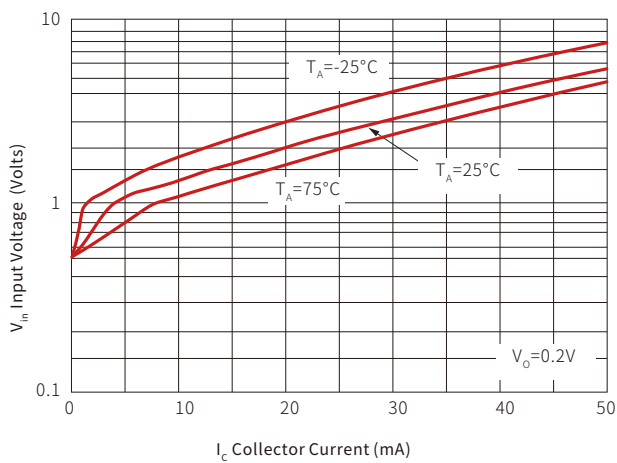
ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10uA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =2.0mA, I _B =0	50			
Collector cut-off current	I _{CBO}	V _{CB} =50V, I _E =0			100	nA
Collector-Emitter cutoff current	I _{CEO}	V _{CE} =50V, I _B =0			500	
Emitter-Base Cutoff current	I _{EBO}	V _{EB} =6.0V, I _C =0			0.20	mA
DC current gain	h _{FE}	V _{CE} =10V, I _C =5mA	80	140		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =0.3mA			0.25	V
Output voltage(on)	V _{OL}	V _{CC} =5.0V, V _B =2.5V, R _L =1.0KΩ			0.2	V
Output voltage(off)	V _{OH}	V _{CC} =5.0V, V _B =0.5V, R _L =1.0KΩ	4.9			V
Input resistor	R ₁		7.0	10	13	kΩ
Resistor ratio	R ₁ /R ₂		0.17	0.21	0.25	

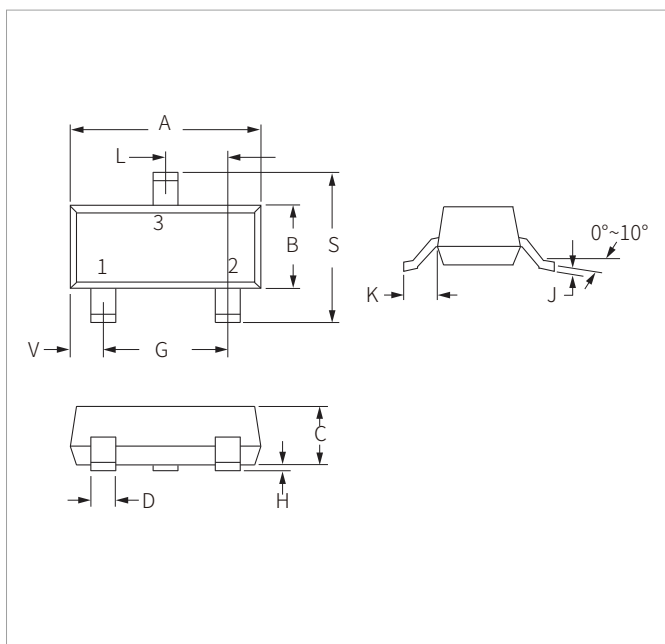
Pulse Test: Pulse Width <300us, Duty Cycle <2.0%

TYPICAL CHARACTERISTICS



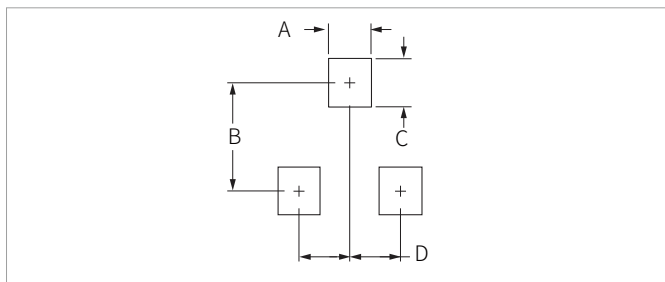
Output Capacitance

Output Current vs. Input Voltage

Input Voltage vs. Output Current


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.05	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.90	1.15	0.035	0.045
D	0.37	0.50	0.015	0.020
G	1.75	2.05	0.069	0.081
H	0.01	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.65	0.083	0.104
V	0.45	0.60	0.018	0.024

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
MUN2214Q	SOT-23	3000PCS	7"

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By QR Code

Website



Wechat

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