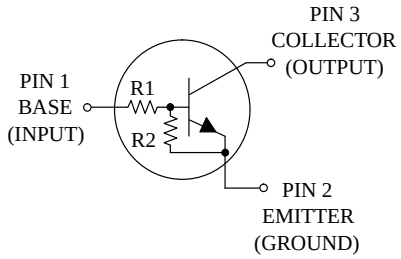
2214, 2214 ,
5214, 114 ,
114 3, 114 3

g ➢ ➢ ( )
1 10 kΩ, 2 4 kΩ

NPN Transistors with Monolithic Bias Resistor Network

This series of digital transistors is designed to replace a single



MARKINlS 1 0 0 1 3.742 -.794 cm 0 4rr.-.7165 lc.

Collector−Emitter Voltage	V_{CEO}	50	Vdc
Collector Current − Continuous	I_C	100	mAdc
Input Forward Voltage	$V_{IN(fwd)}$	40	Vdc
Input Reverse Voltage	$V_{IN(rev)}$	6	Vdc

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

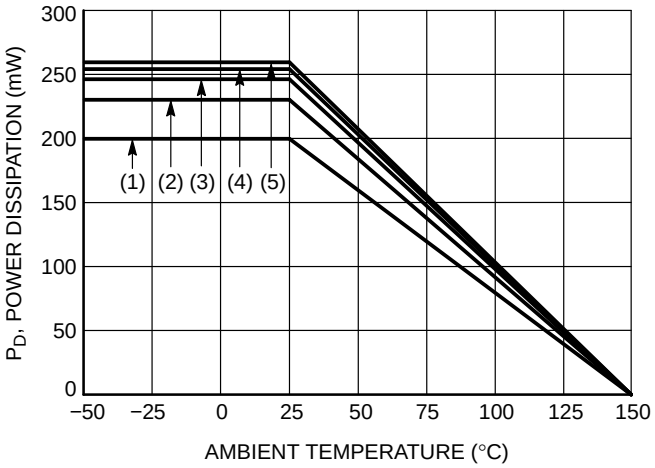
See detailed ordering, marking, and shipping information in

Table 1. ORDERING INFORMATION

Device	Part Marking	Package	Shipping†
MUN2214T1G, SMUN2214T1G*	8D	SC−59 (Pb−Free)	3000 / Tape & Reel
MUN2214T3G, SMUN2214T3G*	8D	SC−59 (Pb−Free)	10000 / Tape & Reel
MMUN2214LT1G, SMMUN2214LT1G*	A8D	SOT−23 (Pb−Free)	3000 / Tape & Reel
MUN5214T1G, SMUN5214T1G*	8D	SC−70/SOT−323 (Pb−Free)	3000 / Tape & Reel
DTC114YET1G, SDTC114YET1G	8D	SC−75 (Pb−Free)	3000 / Tape & Reel
DTC114YM3T5G, NSVDTC114YM3T5G*	8D	SOT−723 (Pb−Free)	8000 / Tape & Reel
NSBC114YF3T5G	J	SOT−1123 (Pb−Free)	8000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

*S and NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC−Q101 Qualified and PPAP Capable.



(1) SC−75 and SC−70/SOT−323; Minimum Pad
(2) SC−59; Minimum Pad
(3) SOT−23; Minimum Pad
(4) SOT−1123; 100 mm^2, 1 oz. copper trace
(5) SOT−723; Minimum Pad

Figure 1. Derating Curve

Table 2. THERMAL CHARACTERISTICS

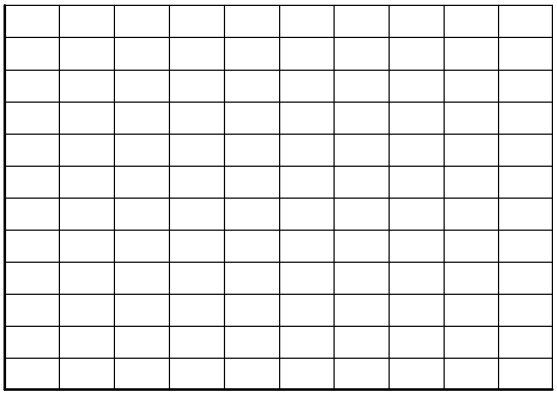
Characteristic		Symbol	Max	Unit
THERMAL CHARACTERISTICS (SOT−1123) (NSBC114YF3)				
Total Device Dissipation		P_D		
T_A = 25°C	(Note 3)		254	mW
	(Note 4)		297	
Derate above 25°C	(Note 3)		2.0	mW/°C
	(Note 4)		2.4	
Thermal Resistance, Junction to Ambient	(Note 3)	$R_{\theta JA}$	493	°C/W
	(Note 4)		421	
Thermal Resistance, Junction to Lead	(Note 3)	$R_{\theta JL}$	193	°C/W
Junction and Storage Temperature Range		T_J, T_{stg}	−55 to +150	°C

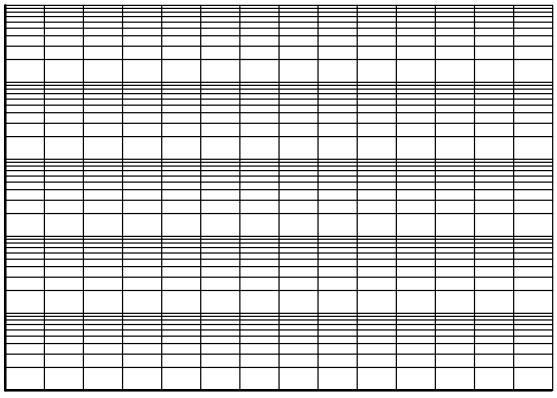
1. FR−4 @ Minimum Pad.
2. FR−4 @ 1.0 x 1.0 Inch Pad.
3. FR−4 @ 100 mm^2, 1 oz. copper traces, still air.
4. FR−4 @ 500 mm^2, 1 oz. copper traces, still air.

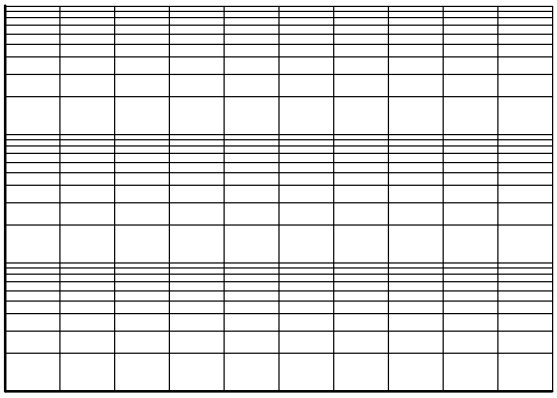
Table 3. ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise noted)

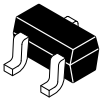
Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector−Base Cutoff Current (V_{CB} = 50 V, I_E = 0) = 0.055 36.737 .9071 re 0 6 6 (OFF 500.655 35.119 Tc(CB)Tj8 0370 8 5 6 (20.6244 6800 m3-.0021 Of348.945 515.2500.655 .907					

TYPICAL CHARACTERISTICS
NSBC114YF3







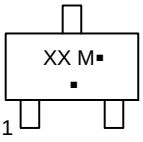


SCALE 4:1

SC−70 (SOT−323)
CASE 419
ISSUE R

DATE 11 OCT 2022

GENERIC
MARKING DIAGRAM



XX = Specific Device Code
M = Date Code
▪ = Pb−Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb−

STYLE 1:
CANCELLED

STYLE 2:
PIN 1. ANODE
2. N.C.
3. CATHODE

STYLE 3:
PIN 1. BASE
2. EMITTER
3. COLLECTOR

STYLE 4:
PIN 1. CATHODE
2. CATHODE
3. ANODE

STYLE 5:
PIN 1. ANODE
2. ANODE
3. CATHODE

STYLE 6:
PIN 1. EMITTER
2. BASE
3. COLLECTOR

STYLE 7:
PIN 1. BASE
2. EMITTER
3. COLLECTOR

STYLE 8:
PIN 1. GATE
2. SOURCE
3. DRAIN

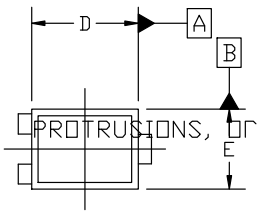
STYLE 9:
PIN 1. ANODE
2. CATHODE
3. CATHODE-ANODE

STYLE 10:
PIN 1. CATHODE
2. ANODE
3. ANODE-CATHODE

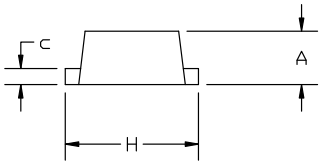
STYLE 11:
PIN 1. CATHODE
2. CATHODE
3. CATHODE

SOT−1123 0.80x0.60x0.37, 0.35P
CASE 524AA
ISSUE D

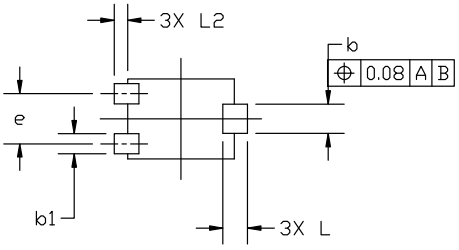
DATE 18 JAN 2024



TOP VIEW



SIDE VIEW



BOTTOM VIEW

NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2018.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THI , ASH,

 < GATE BURRS.

MILLIMETERS			
DIM	MIN	NOM	MAX
A	0.34	0.37	0.40
b	0.15	0.22	0.2
			´5
e	0.35	0.38	0.40
H	0.950	1.000	1.050
L	0.185 REF		
L2	0.05	0.10	0.15

GENERIC
MARKING DIAGRAM*

X = Specific Device Code
M = Date Code

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “▪”, may or may not be present. Some products may not follow the Generic Marking.

RECOMMENDED
MOUNTING FOOTPRINT

*

STYLE 1:
PIN 1. BASE
2. EMITTER
3. COLLECTOR

STYLE 2:
PIN 1. ANODE
2. N/C
3. CATHODE

STYLE 3:
PIN 1. ANODE
2. ANODE
3. CATHODE

STYLE 4:
PIN 1. CATHODE
2. CATHODE
3. ANODE

STYLE 5:
PIN 1. GATE
2. SOURCE
3. DRAIN

SOT−723 1.20x0.80x0.50, 0.40P

GENERIC MARKING