SMD1812

formerly No. 729

SMD Type, 6 V - 60 V

Standard
UL 1434 1st Edition
CSA C22.2 No. 0 CSA TIL No. CA-3A

Approvals
cULus Recognition
TÜV

Features

This product line is also designed for surface-mount applications. The products with 1812-mil footprint range in hold currents from 0.1 A to 2.6 A and voltage from 6 V to 60 V. These devices are suited for PC mother board, computer peripheral products and general electronics applications. Suitable for reflow soldering.

WebLinks

Further info see:
www.wickmanngroup.com

Further application info see fuseology:
www.wickmanngroup.com/download/fuseology.pdf

Specifications

Packaging
A — Blistertape and reel Ø 178 mm

Materials
Terminals: Solder-plated copper
TS: Solder Material: 63/37 SnPb
TF: Lead free plating on request

Max. Device Surface Temperature in Tripped State
125 °C

Operating / Storage Temperature
-40 °C to +85 °C (consider derating)

Humidity Ageing
+85 °C, 85 % R.H., 1000 hours, ± 5 % typical resistance change

Vibration
MIL-STD-883C, Method 2007.1, Condition A, no change

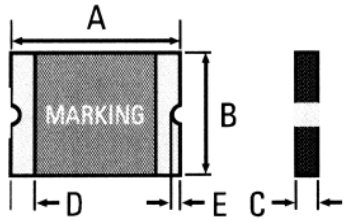
Thermal Shock
MIL-STD-202F, Method 107G
+85 °C to -40 °C 20 times, -30 % typical resistance change

Solderability
Meets EIA Specification RS186-9E, ANSI/J-STD-002, Category 3
Reflow only

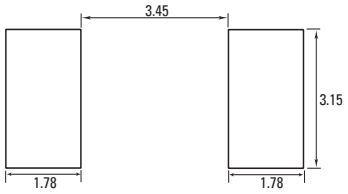
Solvent Resistance
MIL-STD-202, Method 215, no change

Marking
"P", Part Code

Dimensions (mm)



Solder pad Layout (mm)



Dimensions (mm)

Model	A Min	A Max	B Min	B Max	C Min	C Max	D Min	E Min	E Max	packaging quantity tape
SMD1812P010TS/*TF*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.65	1,500
SMD1812P014TS/*TF*	4.37	4.73	3.07	3.41	0.75	1.95	0.30	0.25	0.65	1,500
SMD1812P020TS/*TF*	4.37	4.73	3.07	3.41	0.55	1.00	0.30	0.25	0.65	2,000
SMD1812P050TS/*TF*	4.37	4.73	3.07	3.41	0.50	0.75	0.30	0.25	0.50	2,000
SMD1812P075TS/*TF*	4.37	4.73	3.07	3.41	0.50	0.75	0.30	0.25	0.50	2,000
SMD1812P075TS/*TF/24*	4.37	4.73	3.07	3.41	0.75	1.55	0.30	0.25	0.65	1,500
SMD1812P110TS/*TF*	4.37	4.73	3.07	3.41	0.50	0.75	0.30	0.25	0.50	2,000
SMD1812P110TS/*TF/15*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.65	1,500
SMD1812P110TS/*TF/16*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.65	1,500
SMD1812P125TS/*TF*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.50	1,500
SMD1812P150TS/*TF*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.50	1,500
SMD1812P160TS/*TF*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.65	1,500
SMD1812P160TS/*TF/8*	4.37	4.73	3.07	3.41	0.75	1.25	0.30	0.25	0.65	1,500
SMD1812P200TS/*TF*	4.37	4.73	3.07	3.41	0.75	1.55	0.30	0.25	0.50	1,500
SMD1812P260TS/*TF*	4.37	4.73	3.07	3.41	1.00	1.60	0.30	0.25	0.50	1,000

Permissible continuous operating current is ≤ 100 % at ambient temperature of 20 °C (68 °F).

Model	I_{hold} (A)	I_{Trip} (A)	$V_{max.\ dc}$ (V)	$I_{max.}$ (A)	max. time to trip (s @ A)	$P_{d\ max.}$ (W)	Resistance $R_{min.}$ (Ω)	Resistance $R_{typ.}$ (Ω)	Resistance $R_{I\ max.}$ (Ω)	Approvals cURus	Approvals TÜV
SMD1812P010TS/*TF*	0.10	0.30	30	10	1.50 @ 0.50	0.8	1.600	7.000	15.000	•	•
SMD1812P014TS/*TF*	0.14	0.34	60	10	0.15 @ 1.50	0.8	1.500	4.000	6.000	•	•
SMD1812P020TS/*TF*	0.20	0.40	30	10	0.02 @ 8.00	0.8	0.800	2.900	5.000	•	•
SMD1812P050TS/*TF*	0.50	1.00	15	40	0.15 @ 8.00	0.8	0.150	0.600	1.000	•	•
SMD1812P075TS/*TF*	0.75	1.50	13.2	40	0.20 @ 8.00	0.8	0.110	0.260	0.450	•	•
SMD1812P075TS/*TF/24*	0.75	1.50	24	40	0.20 @ 8.00	0.8	0.110	0.200	0.290	•	•
SMD1812P110TS/*TF*	1.10	2.20	6	40	0.30 @ 8.00	0.8	0.040	0.120	0.210	•	•
SMD1812P110TS/*TF/15**	1.10	1.95	15	40	0.50 @ 8.00	0.8	0.060	0.120	0.180	•	•
SMD1812P110TS/*TF/16*	1.10	1.95	16	40	0.50 @ 8.00	0.8	0.060	0.120	0.180	•	•
SMD1812P125TS/*TF*	1.25	2.50	15	40	0.40 @ 8.00	0.8	0.070	0.160	0.250	•	•
SMD1812P150TS/*TF*	1.50	3.00	6	40	0.50 @ 8.00	0.8	0.040	0.070	0.110	•	•
SMD1812P160TS/*TF*	1.60	2.80	6	40	1.00 @ 8.00	0.8	0.030	0.066	0.100	•	•
SMD1812P160TS/*TF/8*	1.60	2.80	8	40	1.00 @ 8.00	0.8	0.030	0.066	0.100	•	•
SMD1812P200TS/*TF*	2.00	3.50	8	40	2.00 @ 8.00	0.8	0.020	0.040	0.060	•	•
SMD1812P260TS/*TF*	2.60	5.20	6	40	2.50 @ 8.00	0.8	0.015	0.030	0.047	•	•

* obsolete

Please choose TS for SnPb and *TF* for Sn plating

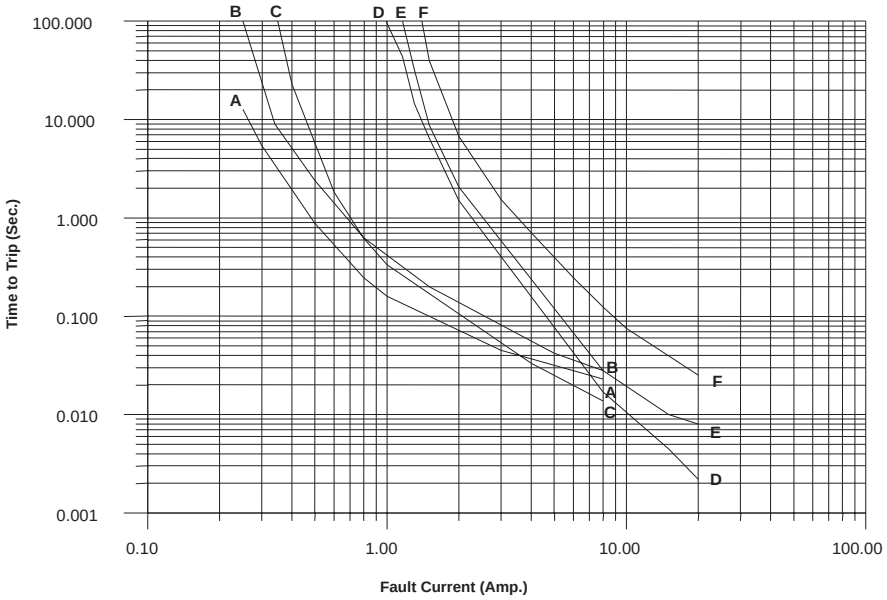
NOTE:
I_{hold} = Hold current: maximum current device will pass without tripping in 20 °C still air.
I_{trip} = Trip current: minimum current at which the device will trip in 20 °C still air.
V_{max} = Maximum voltage device can withstand without damage at rated current (I_{max})
I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max})

P_d = Power dissipated from device when in the tripped state at 20 °C still air.
R_{min} = Minimum resistance of device in initial (un-soldered) state.
R_{1max} = Maximum resistance of device at 20 °C measured one hour after tripping for 20 s.

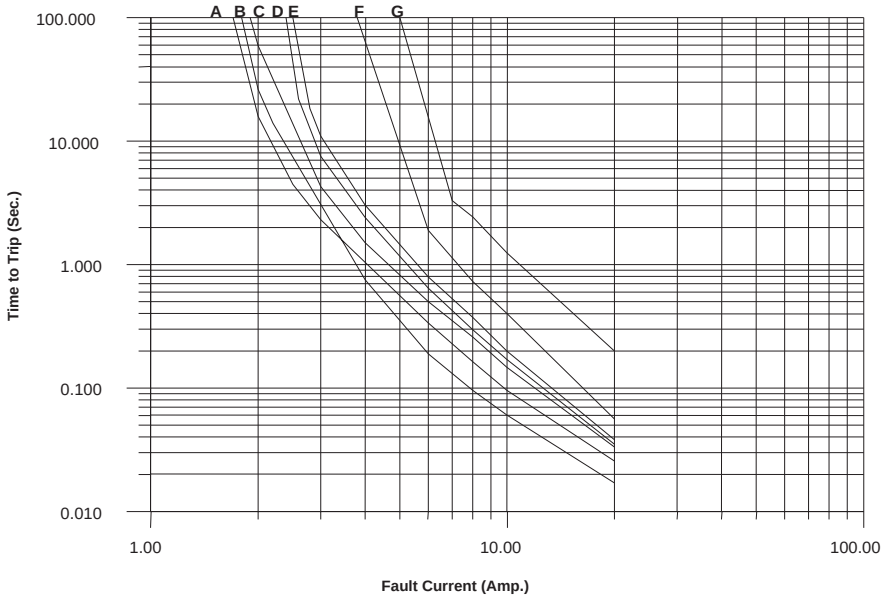
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.
Specifications are subject to change without notice

Order Information	Qty.	Order-Number	Model	Packaging

SMD1812



A:SMD1812P010TS/*TF*
B:SMD1812P014TS/*TF*
C:SMD1812P020TS/*TF*
D:SMD1812P050TS/*TF*
E:SMD1812P075TS/*TF*
F:SMD1812P075TS/*TF/24*



A:SMD1812P125TS/*TF*
B:SMD1812P110TS/*TF*
C:SMD1812P110TS/*TF/16*
D:SMD1812P150TS/*TF*
E:SMD1812P160TS/*TF*
F:SMD1812P200TS/*TF*
G:SMD1812P260TS/*TF*

Thermal Derating Chart

Model	Ambient Operation Temperature - I_{hold} (A)								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
SMD1812P010TS/*TF*	0.16	0.14	0.12	0.01	0.08	0.07	0.06	0.05	0.03
SMD1812P014TS/*TF*	0.23	0.19	0.17	0.14	0.12	0.10	0.09	0.08	0.06
SMD1812P020TS/*TF*	0.29	0.26	0.23	0.20	0.17	0.15	0.14	0.12	0.10
SMD1812P050TS/*TF*	0.77	0.68	0.59	0.50	0.44	0.40	0.37	0.33	0.29
SMD1812P075TS/*TF*	1.15	1.01	0.88	0.75	0.65	0.60	0.55	0.49	0.43
SMD1812P075TS/*TF/24*	1.06	0.95	0.84	0.75	0.60	0.55	0.50	0.45	0.37
SMD1812P110TS/*TF*	1.59	1.43	1.26	1.10	0.95	0.87	0.80	0.71	0.60
SMD1812P110TS/*TF/15*	1.58	1.43	1.27	1.10	0.95	0.85	0.77	0.71	0.58
SMD1812P110TS/*TF/16*	1.58	1.43	1.27	1.10	0.95	0.85	0.77	0.71	0.58
SMD1812P125TS/*TF*	2.00	1.75	1.52	1.25	1.00	0.95	0.90	0.75	0.53
SMD1812P150TS/*TF*	2.30	2.03	1.76	1.50	1.25	1.10	1.00	0.80	0.60
SMD1812P160TS/*TF*	2.27	2.05	1.83	1.60	1.35	1.25	1.15	1.00	0.85
SMD1812P200TS/*TF*	3.08	2.71	2.35	2.00	1.80	1.60	1.50	1.07	0.80
SMD1812P260TS/*TF*	4.00	3.52	3.06	2.60	2.34	2.08	1.95	1.39	1.04

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