



APPROVAL SHEET

Customer Information

Customer :			
Part Name :			
Part No. :			
Model No. :			
COMPANY	PURCHASE	R&D	

Vendor Information

Name:	SFI ELECTRONICS TECHNOLOGY CORP. INC.
Part Name	
Part No.	SMD GDT series
Lot No.	

SFI ELECTRONICS TECHNOLOGY INC.			
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		YC Chang	Jean Yi

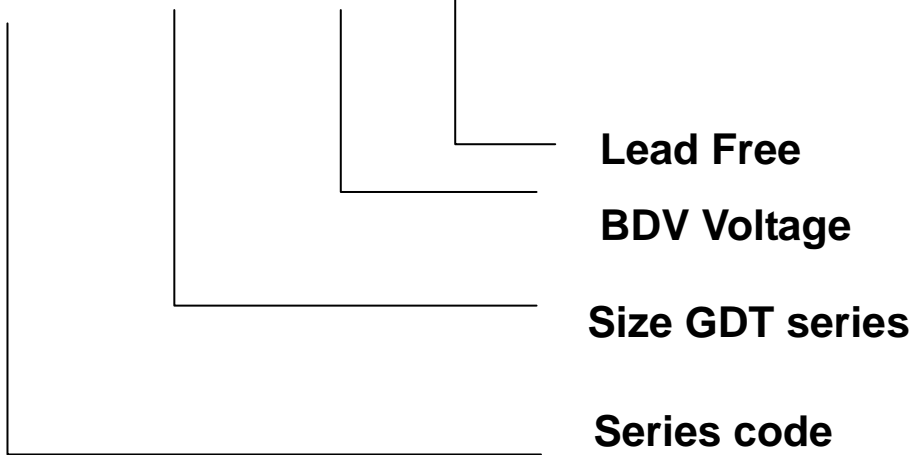
Part No. :	SMD GDT-series	Document No.	001	REV.	B
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PART NO. SFI4532G-XXX

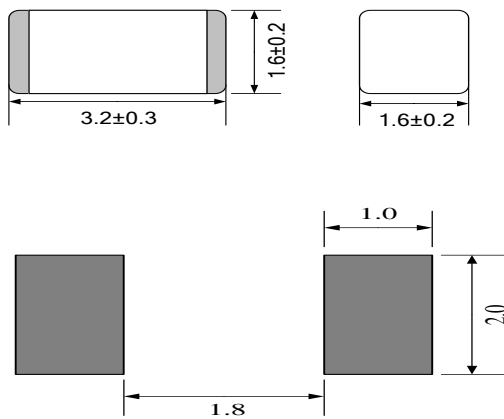
1. Part Number Identification

SFI 4532G 600 LF

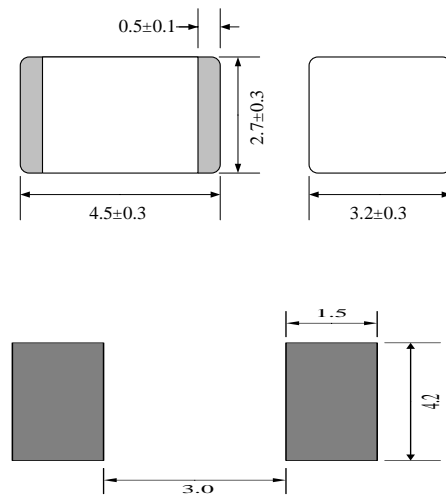


2. SIZE VS PAD

3216



4532



Type	Length	Width	Electrode
3216(mm)	3.2±0.30	1.6±0.20	1.6±0.20
4532(mm)	4.5±0.30	3.2±0.30	2.7±0.30

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3. Specification

Part Number	DC Breakdown Voltage	DC Holdover voltage	Impulse Discharge Current	Alternating Discharge current	Impulse life test	Insulation resistance	Capacitance (1MHz 1V)
Symbol	V	V	8/20 μ s 500A Positive /Negative 5 times	50Hz is 0.5A 10 times	8/20 μ s 50A 300 times	100M Ω Min (DC 50V)	0.3pf Max
SFI3216G-120LF	120(84~156)	52					
SFI3216G-150LF	150(105~195)	52					
SFI3216G-200LF	200(140~260)	80					
SFI3216G-400LF	400(280~520)	150					
SFI3216G-420LF	420(294~546)	150					
SFI3216G-500LF	500(350~650)	150					
SFI3216G-600LF	600(420~780)	150					
Part Number	DC Breakdown Voltage	DC Holdover voltage	Impulse Discharge Current	Impulse withstanding voltage capacity	Impulse life test	Insulation resistance	Capacitance (1MHz 1V)
SFI4532G-075LF	75(55~95)	52	2000	10/700 μ s 4KV Positive /Negative 5 times	8/20 μ s 100A 300 times	100M Ω	0.5
SFI4532G-090LF	90(63~117)	52					
SFI4532G-120LF	120(84~156)	52					
SFI4532G-150LF	150(105~195)	52					
SFI4532G-200LF	200(140~260)	80					
SFI4532G-230LF	230(161~299)	80					
SFI4532G-300LF	300(210~390)	150					
SFI4532G-350LF	350(245~455)	150					
SFI4532G-400LF	400(280~520)	150					
SFI4532G-420LF	420(294~546)	150					
SFI4532G-470LF	470(329~611)	150					
SFI4532G-600LF	600(420~780)	150					

Part No. :	SMD GDT-series	Document No.	001	REV.	B
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4. ELECTRICAL RATING

Item	Test Condition / Description	Requirement
DC Breakdown Voltage	The voltage is measured with a low rate of rise $dv / dt \cong 100 \text{ v/s}$	To meet the specified value
Maximum Impulse Breakdown Voltage	The maximum impulse breakdown voltage is measured with a rise time of $dv / dt \cong 1000 \text{ v/}\mu\text{s}$	
Maximum Impulse Discharge Current	<p>The maximum current within gas tube voltage change of $\pm 20\%$ when one impulse is applied.</p> <p>Applied waveform : $8/20 \mu\text{ sec}$</p> <div style="text-align: center;"> </div>	
Maximum AC Discharge Current	<p>Rated rms value of ac current at 50 Hz , 1sec.</p> <p>Requirements of: Intervals: 3 min 2-electrode gas tube 9 discharges</p> <p style="padding-left: 100px;">3-electrode gas tube 10 discharges</p>	
DC Holdover Voltage	The maximum DC voltage across the two terminals of gas tube under which it may be expected to return to the high impedance state after the gas tube breakdown.	
Insulation Resistance	The resistance of gas tube shall be measured each terminal to each other terminal. Applied voltage: gas tube dc breakdown voltage under 150V, the test voltage is 50V dc; with all other types at 100V dc.	
Capacitance	<p>The capacitance of gas tube shall be measured each terminal to each other terminal. Test frequency : 1 MHZ</p> <p>In measurements involving 3-electrode gas tubes ,the terminal not being tested shall be connected to a ground plane.</p>	

Temperature Rating

Storage : -40°C to $+115^{\circ}\text{C}$ Operation : -40°C to $+90^{\circ}\text{C}$

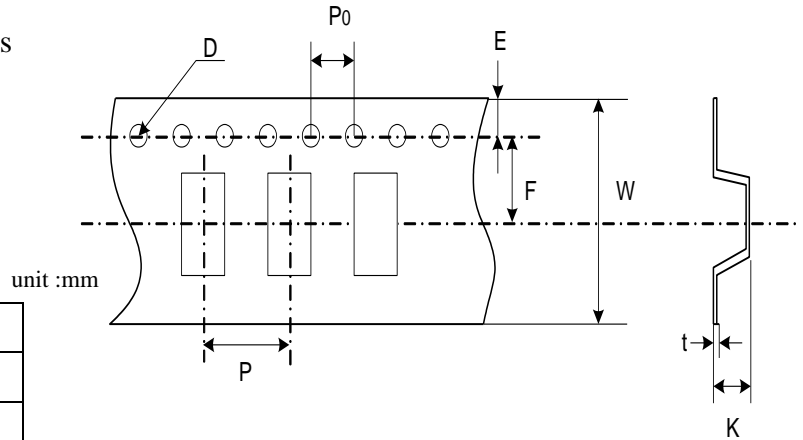
Part No. :	SMD GDT-series	Document No.	001	REV.	B
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5. Package

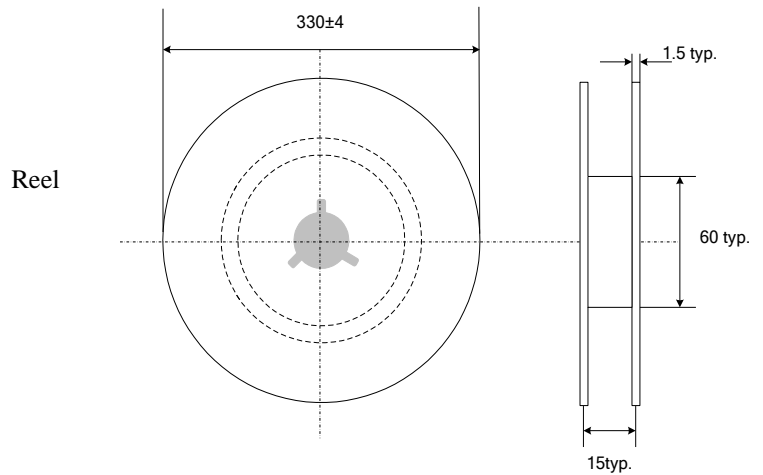
3216 SIZE

Taping & Reel Specifications



Item	Spec
P	8.0±0.1
P0	4.0±0.1
W	12.0±0.3
F	5.45±0.1
E	1.75±0.1
D	Φ1.55±0.05
K	2.0±0.1
t	0.3±0.05

Quantity: 3000 pcs per reel (13'')
 3 reels per inner box
 5 inners box per carton
 45,000 pcs per full carton



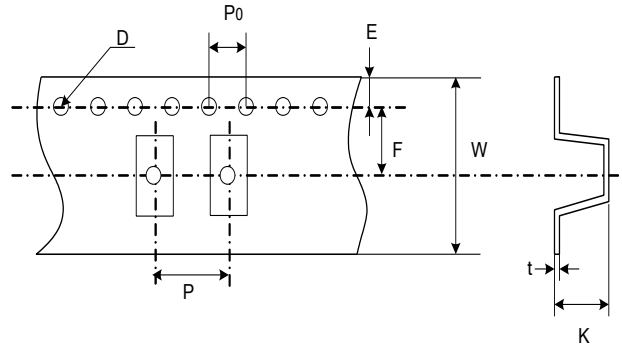
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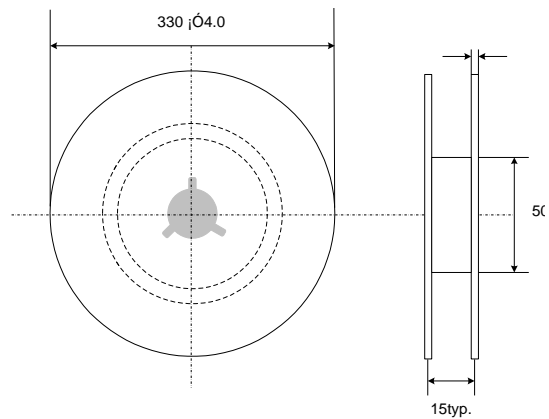
◆ Chip 4532 GDT Taping

(unit :mm)

Item	Spec
P	8.0±0.1
P0	4.0±0.1
W	12.0±0.3
F	5.45±0.1
E	1.75±0.1
D	Φ1.55±0.05
K	3.1±0.2
t	0.4±0.1



Quantity: 2500 pcs per reel (13")
 3 reels per inner box
 5 inners box per car
 37,500 pcs per full carton





Reliability Test Report

Test Item : Fast temperature cycling

Test condition : The temperature cycle shown below shall be repeated five times and then stored at room temperature and humidity for one to two hours. The change of Vb as well as mechanical damage shall be examined.

The temperature cycle :

Test condition: -40°C 30min to 90°C±2°C 30min 5 cycles

Test analysis Judge Criterion: $|\Delta V/V| < 25\%$ $\Delta V = \text{after test breakdown voltage} - \text{before test breakdown voltage}$

Part No. : 4532 300 LF (example part)

Test result : PASS

No.	First		After		$\Delta V_s/V_s\%$		外观	No.	First		After		$\Delta V_s/V_s\%$		外观
	Vs(+)	Vs(-)	Vs(+)	Vs(-)	Vs(+)	Vs(-)			Vs(+)	Vs(-)	Vs(+)	Vs(-)	Vs(+)	Vs(-)	
1	286	306	294	317	2.80%	3.59%	OK	41	277	288	287	301	3.61%	4.51%	OK
2	278	276	285	277	2.52%	0.36%	OK	42	312	301	319	304	2.24%	1.00%	OK
3	299	300	304	313	1.67%	4.33%	OK	43	277	281	292	282	5.42%	0.36%	OK
4	274	286	281	299	2.55%	4.55%	OK	44	287	277	304	291	5.92%	5.05%	OK
5	274	277	281	287	2.55%	3.61%	OK	45	316	321	313	324	-0.96%	0.93%	OK
6	300	312	318	320	6.00%	2.56%	OK	46	290	282	301	286	3.79%	1.42%	OK
7	278	270	291	279	4.68%	3.33%	OK	47	277	288	282	300	1.81%	0.67%	OK
8	321	317	325	317	1.25%	0.00%	OK	48	324	331	336	343	3.70%	3.63%	OK
9	276	275	278	285	0.72%	3.64%	OK	49	278	304	287	307	3.24%	0.99%	OK
10	272	270	285	276	4.78%	2.22%	OK	50	298	295	297	291	-0.34%	-1.36%	OK
11	284	281	290	285	2.11%	1.42%	OK	51	284	279	298	282	4.93%	1.08%	OK
12	276	286	285	297	3.26%	3.85%	OK	52	316	288	313	299	-0.96%	3.82%	OK
13	285	288	289	289	1.40%	0.35%	OK	53	292	282	299	296	2.40%	4.96%	OK
14	282	286	286	295	1.42%	3.15%	OK	54	330	336	336	339	1.82%	0.89%	OK
15	273	276	272	275	-0.37%	-0.36%	OK	55	280	270	284	279	1.43%	3.33%	OK
16	289	284	291	285	0.69%	0.35%	OK	56	304	292	295	282	-2.96%	-3.42%	OK
17	293	281	297	284	1.37%	1.07%	OK	57	311	310	320	313	2.89%	0.97%	OK
18	338	329	332	327	-1.78%	-0.61%	OK	58	311	309	333	318	7.07%	2.91%	OK
19	269	278	268	269	-0.37%	-3.24%	OK	59	295	288	303	302	2.71%	4.86%	OK
20	315	336	325	339	3.17%	0.89%	OK	60	313	319	330	329	5.43%	3.13%	OK
21	302	308	303	310	0.33%	0.65%	OK	61	303	307	301	312	-0.66%	1.63%	OK
22	315	311	316	312	0.48%	0.32%	OK	62	317	306	319	301	0.79%	-1.47%	OK
23	305	309	303	314	-0.82%	1.46%	OK	63	287	297	298	306	4.01%	3.03%	OK
24	319	308	321	303	0.63%	-1.63%	OK	64	292	308	295	312	0.86%	1.46%	OK
25	289	299	300	308	3.99%	3.01%	OK	65	317	309	318	311	0.47%	0.49%	OK
26	294	310	297	304	0.85%	-1.76%	OK	66	293	287	293	288	0.00%	0.35%	OK
27	319	311	320	313	0.47%	0.48%	OK	67	319	324	325	324	1.88%	0.00%	OK
28	295	289	295	290	0.00%	0.35%	OK	68	304	302	303	302	-0.16%	0.00%	OK
29	321	326	327	326	1.87%	-0.16%	OK	69	317	305	315	304	-0.63%	-0.16%	OK
30	306	304	305	304	-0.16%	0.00%	OK	70	279	303	279	306	0.18%	1.16%	OK
31	319	307	317	306	-0.63%	-0.33%	OK	71	316	312	317	311	0.32%	-0.32%	OK
32	281	305	281	308	0.18%	0.99%	OK	72	304	294	305	297	0.33%	1.02%	OK
33	318	314	319	313	0.31%	-0.32%	OK	73	304	316	300	321	-1.48%	1.74%	OK
34	306	296	307	299	0.33%	1.01%	OK	74	296	306	288	296	-2.71%	-3.27%	OK
35	306	318	302	323	-1.47%	1.73%	OK	75	331	307	335	304	1.21%	-0.98%	OK
36	298	308	290	298	-2.69%	-3.25%	OK	76	310	308	313	304	0.81%	-1.14%	OK
37	333	309	337	306	1.20%	-1.13%	OK	77	307	316	303	320	-1.14%	1.43%	OK
38	312	310	315	306	0.80%	-1.13%	OK	AVG	300	301	304	304	1.33%	1.06%	
39	309	318	305	321	-1.13%	0.94%	OK	MAX	338	336	337	343	7.07%	5.05%	
40	317	315	317	316	0.00%	0.32%	OK	MIN	269	270	288	289	-2.96%	-3.42%	

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