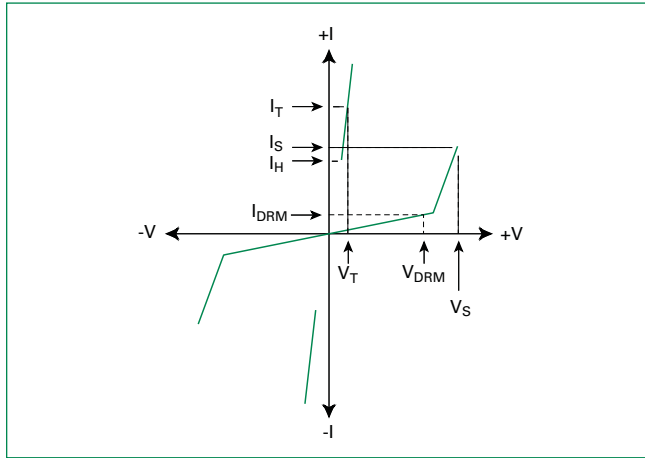
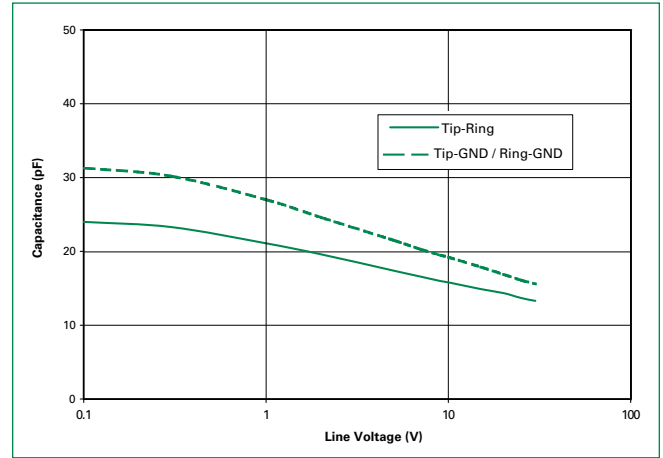


V-I Characteristics



Capacitance vs. Voltage



50/60 Hz Ratings

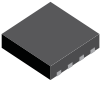
Parameter Name	Test Conditions	Value	Units
I _{TSM} Maximum non-repetitive on-state current, 50/60 Hz	0.5s	6.5	A
	1s	4.6	
	2s	3.4	
	5s	2.3	
	30s	1.3	
	900s	0.73	

Surge Ratings

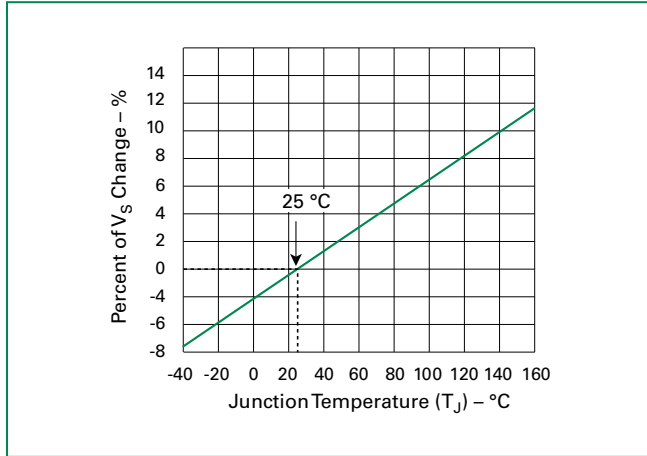
Series	I _{PP}				I _{TSM}
	2x10μs	1.2x50μs/8x20μs	10x700/5x310μs	10x1000μs	600V _{RMS} 1 Cycle
	A min	A min	A min	A min	A _{RMS}
B	250	230	100	75	25

- Notes:
- Peak pulse current rating (I_{PP}) is repetitive and guaranteed for the life of the product.
 - I_{PP} ratings applicable over temperature range of -40°C to +85°C
 - The device must initially be in thermal equilibrium with -40°C ≤ T_J ≤ +150°C

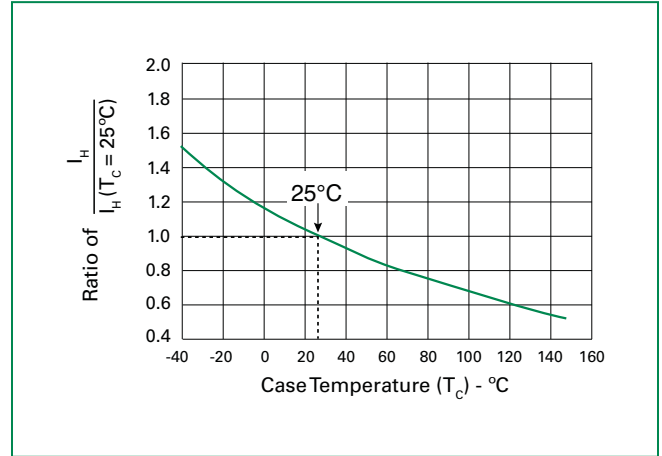
Thermal Considerations

Package	Symbol	Parameter	Value	Unit
5 x 6 QFN 	T _J	Junction Temperature	-40 to +150	°C
	T _{STG}	Storage Temperature Range	-40 to +150	°C
	R _{θJA}	Thermal Resistance: Junction to Ambient	100	°C/W

Normalized V_s Change vs. Junction Temperature

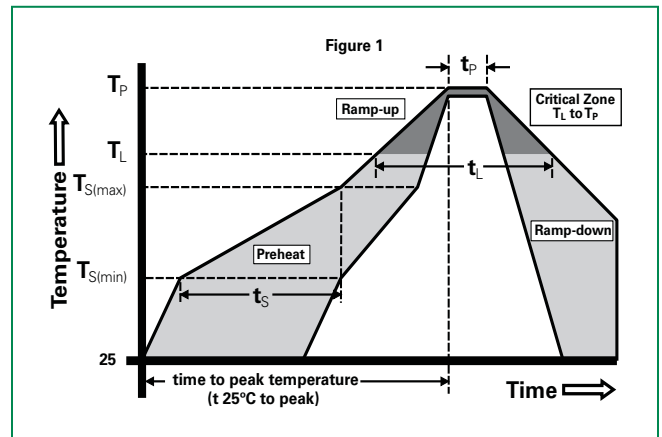


Normalized DC Holding Current vs. Case Temperature



Soldering Parameters

Reflow Condition		Pb-Free assembly (see Fig. 1)
Pre Heat	-Temperature Min ($T_{s(\min)}$)	+150°C
	-Temperature Max ($T_{s(\max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/sec. Max.
$T_{s(\max)}$ to T_L - Ramp-up Rate		3°C/sec. Max.
Reflow	-Temperature (T_L) (Liquidus)	+217°C
	-Temperature (t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to Peak Temp (T_p)		8 min. Max.
Do not exceed		+260°C



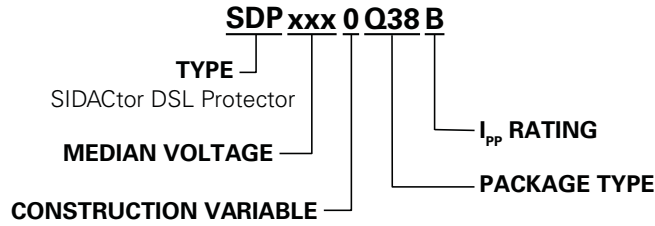
Physical Specifications

Lead Material	Copper Alloy
Terminal Finish	100% Matte-Tin Plated
Body Material	UL recognized epoxy meeting flammability classification 94V-0

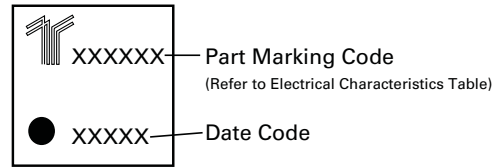
Environmental Specifications

High Temp Voltage Blocking	80% Rated V_{DRM} (V_{AC} Peak) +125°C or +150°C, 504 or 1008 hrs. MIL-STD-750 (Method 1040) JEDEC, JESD22-A-101
Temp Cycling	-65°C to +150°C, 15 min. dwell, 10 up to 100 cycles. MIL-STD-750 (Method 1051) EIA/JEDEC, JESD22-A-104
Biased Temp & Humidity	52 V_{DC} (+85°C) 85% RH, 504 up to 1008 hrs. EIA/JEDEC, JESD22-A-101
High Temp Storage	+150°C 1008 hrs. MIL-STD-750 (Method 1031) JEDEC, JESD22-A-101
Low Temp Storage	-65°C, 1008 hrs.
Thermal Shock	0°C to +100°C, 5 min. dwell, 10 sec. transfer, 10 cycles. MIL-STD-750 (Method 1056) JEDEC, JESD22-A-106
Resistance to Solder Heat	+260°C, 30 secs. MIL-STD-750 (Method 2031)
Moisture Sensitivity Level	85% RH, +85°C, 168 hrs., 3 reflow cycles (+260°C Peak). JEDEC-J-STD-020, Level 1

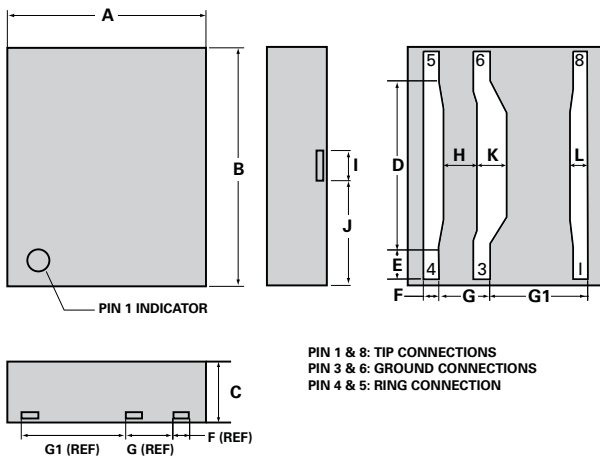
Part Numbering



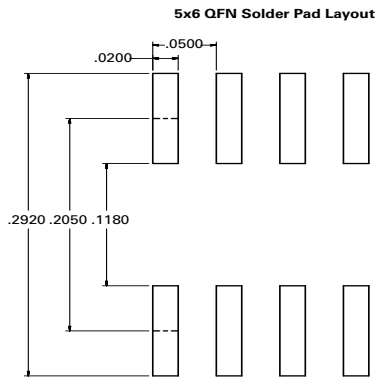
Part Marking



Dimensions — 5x6 QFN



Dimension	Inches		Millimeters	
	Min	Max	Min	Max
A	0.187	0.207	4.745	5.252
B	0.226	0.246	5.745	6.253
C	0.054	0.064	1.374	1.628
D	0.165	0.171	4.199	4.351
E	0.027	0.033	0.686	0.838
F	0.011	0.017	0.279	0.432
G	0.047	0.053	1.194	1.346
G1	0.097	0.103	2.464	2.616
H	0.032	0.038	0.800	0.953
I	0.027	0.033	0.686	0.838
J	0.100	0.106	2.540	2.692
K	0.027	0.033	0.686	0.838
L	0.015	0.021	0.381	0.533

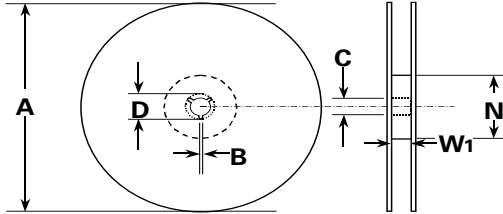


Packing Options

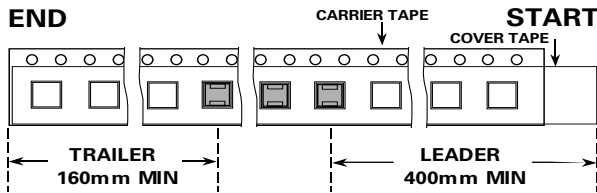
Package Type	Description	Quantity	Added Suffix	Industry Standard
Q38	5x6x1.5 QFN Tape and Reel	4000	N/A	EIA-481-D

Tape and Reel Specifications – 5x6 QFN

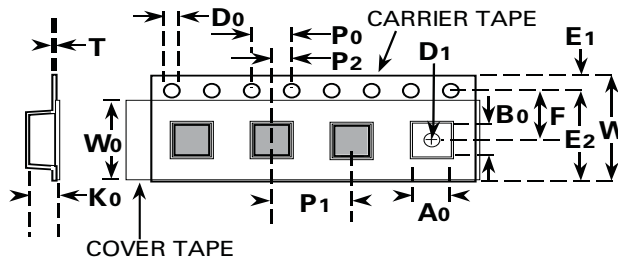
Reel Dimension



Tape Leader and Trailer Dimensions



Tape Dimension Items



Symbols	Description	Inches		Millimeters	
		Min	Max	Min	Max
A	Reel Diameter	N/A	12.992	N/A	330.0
B	Drive Spoke Width	0.059	N/A	1.50	N/A
C	Arbor Hole Diameter	0.504	0.531	12.80	13.50
D	Drive Spoke Diameter	0.795	N/A	20.20	N/A
N	Hub Diameter	1.969	N/A	50.00	N/A
W ₁	Reel Inner Width at Hub	0.488	0.567	12.40	14.40
A ₀	Pocket Width at Bottom	0.204	0.212	5.20	5.40
B ₀	Pocket Length at Bottom	0.244	0.252	6.20	6.40
D ₀	Feed Hole Diameter	0.059	0.063	1.50	1.60
D ₁	Pocket Hole Diameter	0.059	N/A	1.50	N/A
E ₁	Feed Hole Position 1	0.065	0.073	1.65	1.85
E ₂	Feed Hole Position 2	0.400	0.408	10.15	10.35
F	Feed Hole Center - Pocket Hole Center 2	0.212	0.220	5.40	5.60
K ₀	Pocket Depth	0.067	0.075	1.70	1.90
P ₀	Feed Hole Pitch	0.153	0.161	3.90	4.10
P ₁	Component Spacing	0.311	0.319	7.90	8.10
P ₂	Feed Hole Center - Pocket Hole Center 1	0.077	0.081	1.90	2.10
T	Carrier Tape Thickness	0.010	0.014	0.25	0.35
W	Embossed Carrier Tape Width	0.460	0.484	11.70	12.30
W ₀	Cover Tape Width	0.358	0.366	9.10	9.30

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