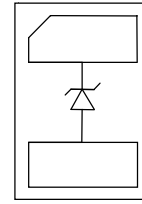


Features

- I Small package: 1.6x1.0x0.5mm
- I Protects one data or power line
- I Operating Voltage: 3.3V, 5V, 7V, 9V, 12V, 15V, 18V, 24V, 36V
- I High peak pulse current capability
- I Ultra low clamping voltage
- I 2-pin leadless package
- I Complies with following standards:IEC 61000-4-2 (ESD) immunity test Air discharge: ±30Kv, Contact discharge: ±30kV
- I RoHS Compliant

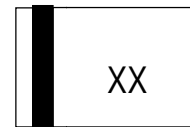
Circuit and Pin Schematic



Applications

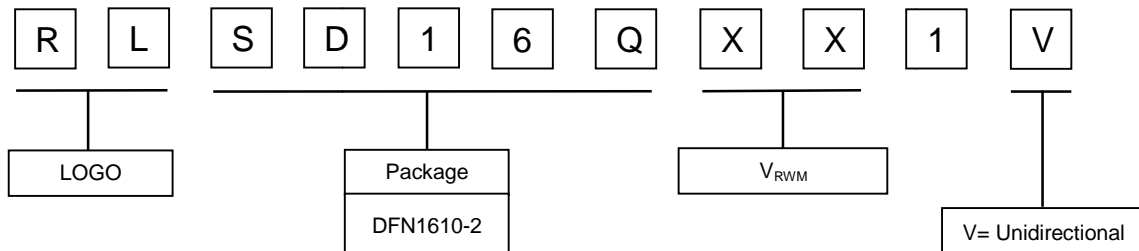
- I Mobile Phones and Accessories
- I Battery Protection
- I USB VBus
- I Power Line Protection
- I Hand Held Portable Applications

Marking Information



XX=Device Marking Code
Bar denotes Cathode

Part Number Code



Absolute Maximum Rating TA=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Max. Peak Pulse Power (tp =8/20μs)	P _{PK}	1875	W
ESD Voltage (Contact)	V _{ESD}	±30	kV
ESD Voltage (Air)	V _{ESD}	±30	kV
Operating Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to+ 150	°C

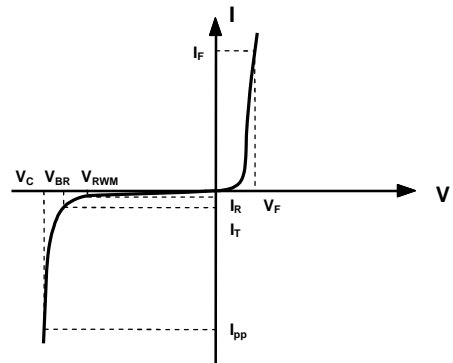


Electrical Characteristics (@ 25°C Unless Otherwise Specified)

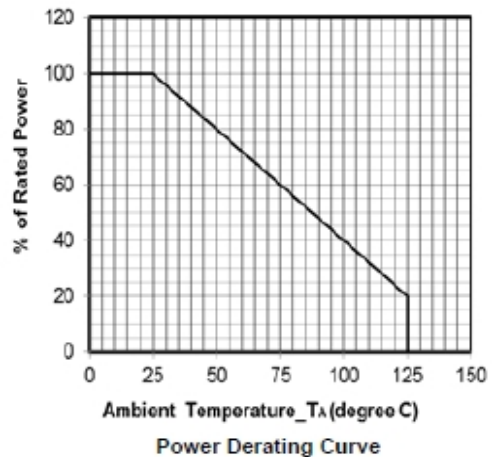
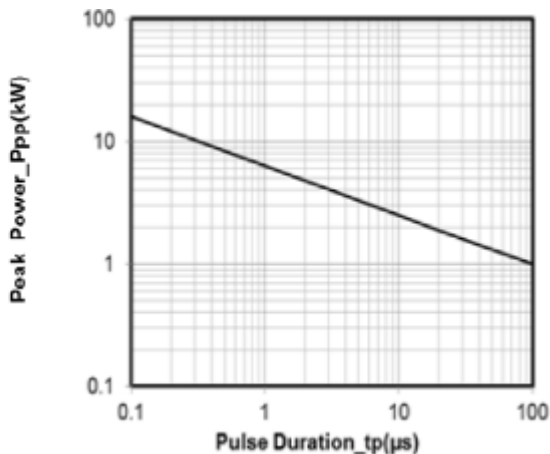
Type Number	Reverse Stand-Off Voltage	Min. Breakdown Voltage	Max. Peak Pulse Voltage @8/20µS	Max. Peak Pulse Current @8/20µS	Max. Reverse Leakage @V _{RWM}	Typical Capacitance
	V _{RWM}	V _{BR} @1mA	V _C @ Max. I _{PP}	I _{PP}	I _R @V _{RWM}	DC=0V C _J @ 1 MHz
	V	V	V	A	µA	pF
RLSD16Q031V	3.3	3.5	12.5	150	1.0	750
RLSD16Q051V	5	6	15	125	1.0	650
RLSD16Q071V	7	7.5	16.5	115	0.5	550
RLSD16Q091V	9	10	23	90	0.5	525
RLSD16Q121V	12	12.6	25	75	0.1	500
RLSD16Q151V	15	16.5	31.25	60	0.1	450
RLSD16Q181V	18	19.6	37.5	50	0.1	350
RLSD16Q241V	24	26.7	53.5	35	0.1	200
RLSD16Q361V	36	37	75	25	0.1	150

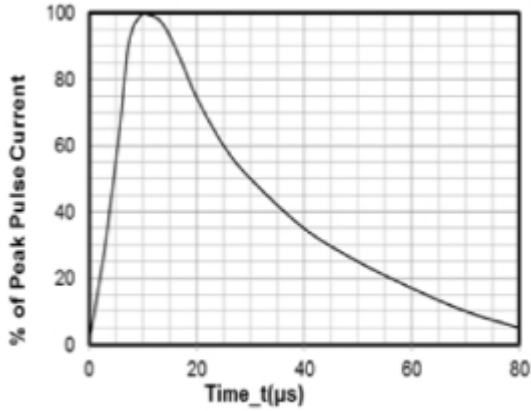
Electrical Parameters (T=25°C)

Symbol	Parameter
I _{pp}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{pp}
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current
I _F	Forward Current
V _F	Forward Voltage @ I _F



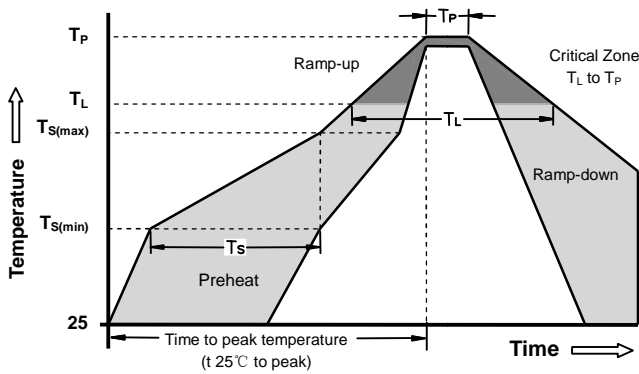
Typical Performance Characteristics (TA=25°C unless otherwise Specified)





8 X 20μs Pulse Waveform

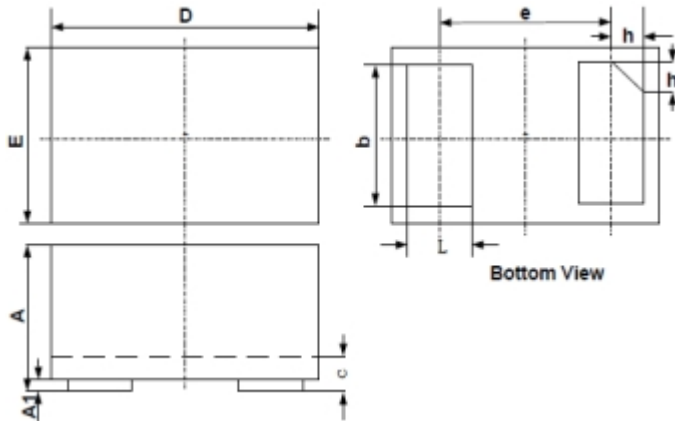
Soldering Parameters - Reflow Soldering (Surface Mount Devices)



Reflow Condition	Pb - Free assembly
Pre Heat - Temperature Min ($T_{s(min)}$)	150°C
Pre Heat - Temperature Max ($T_{s(max)}$)	200°C
- Time (min to max) (t_s)	60 -180 Seconds
Average ramp up rate (Liquids Temp T_L to peak)	3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate	3°C/second max
Reflow (Liquids) - Temperature (T_L)	217°C
w - Time (min to max) (t_s)	60 -150 Seconds
Peak Temperature (T_P)	260 +0/-5°C
Time within 5°C of actual peak Temperature (t_p)	20 - 40 Seconds
Ramp-down Rate	6°C/second max
Time 25°C to peak Temperature (T_P)	8 minutes Max
Do not exceed	280°C

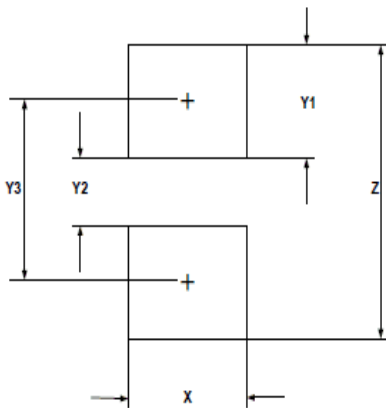


DFN1610-2 Package Outline Drawing



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.45	0.55	0.018	0.022
A1	0.00	0.05	0.000	0.002
B	0.75	0.85	0.030	0.034
c	0.10	0.20	0.004	0.008
D	1.55	1.65	0.062	0.066
e	1.10BSC		0.044 BSC	
E	0.95	1.05	0.038	0.042
L	0.35	0.45	0.014	0.018
h	0.15	0.25	0.008	0.010

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	1.00	0.040
Y1	0.62	0.025
Y2	0.60	0.024
Y3	1.22	0.049
Z	1.85	0.074