

**Maximum Ratings** (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Peak Power Dissipation (Note 7)	$P_{PK}$	40	W

**Thermal Characteristics**

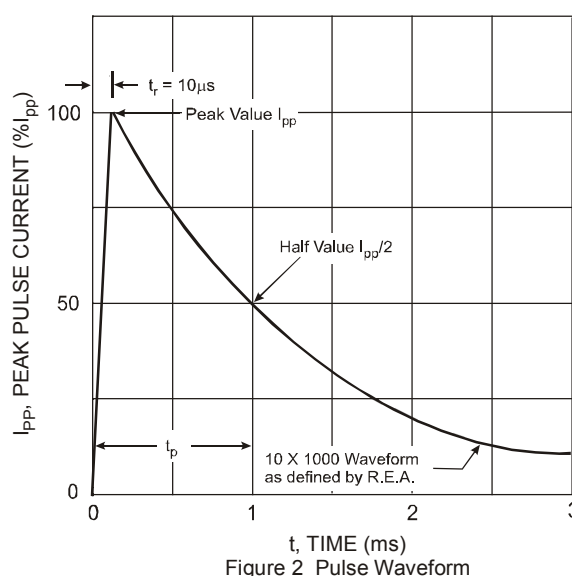
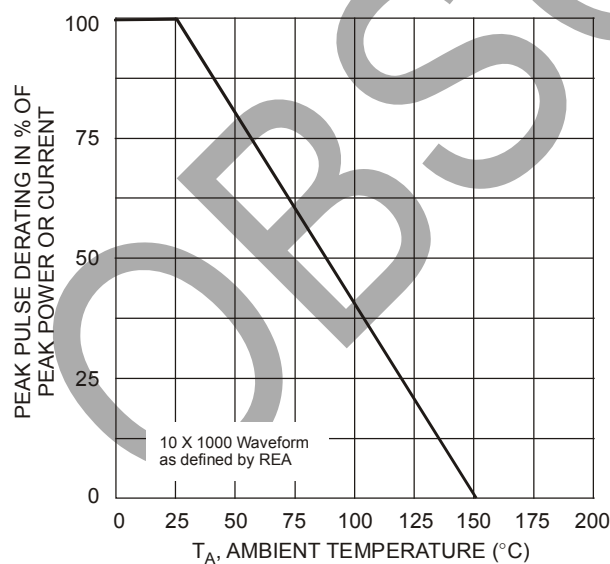
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 8)	$P_D$	225	mW
Thermal Resistance, Junction to Ambient Air (Note 8)	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

**Electrical Characteristics** (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

 $V_F = 0.9\text{V max @ } I_F = 10\text{mA}$ 

Type Number	Marking Code	$V_{RWM}$	Max Reverse Leakage $I_R$ @ $V_{RWM}$ (Note 9)	Breakdown Voltage				Max. Clamping Voltage $V_C$ @ $I_{PP}$ (Note 7)		Typical Temperature Coefficient
				$V_{BR}$ (Note 9) (V)			@ $I_T$	$V_C$	$I_{PP}$	
				Min	Nom	Max	mA	V	A	
MMBZ15VDL	KVJ	12.8	100	14.3	15	15.8	1.0	21.2	1.9	+0.080

- Notes:
- Non-repetitive current pulse per Figure 2 and derate above  $T_A = +25^\circ\text{C}$  per Figure 1.
  - Device mounted on FR-5 PCB  $1.0 \times 0.75 \times 0.062$  inch pad layout as shown on Diodes Inc. suggested pad layout AP02001, which can be found on our website at <http://www.diodes.com>. 200mW per element must not be exceeded.
  - Short duration pulse test used to minimize self-heating effect.



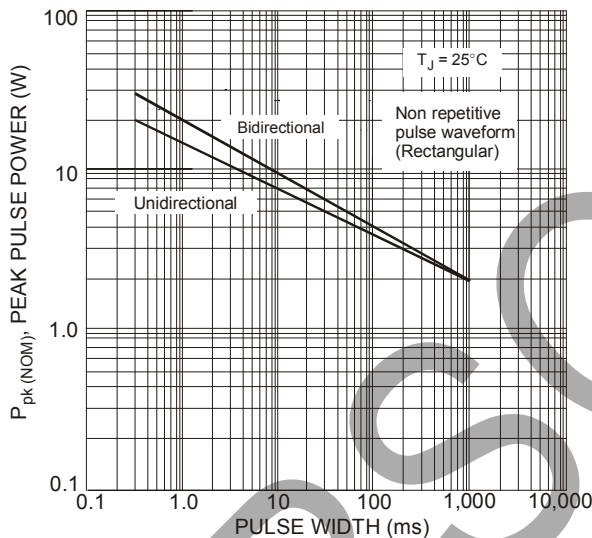
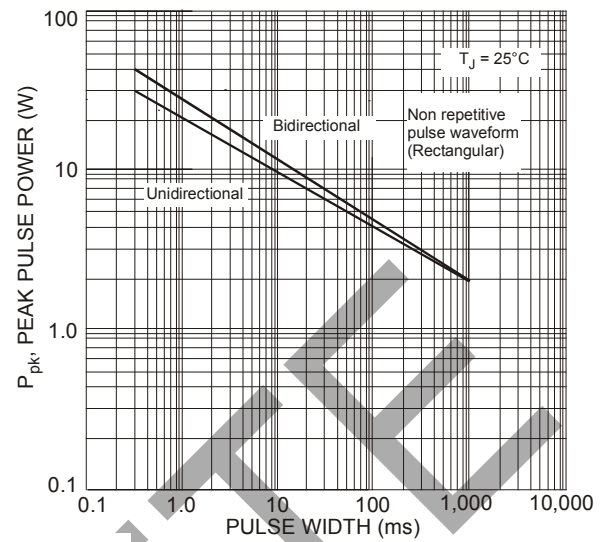
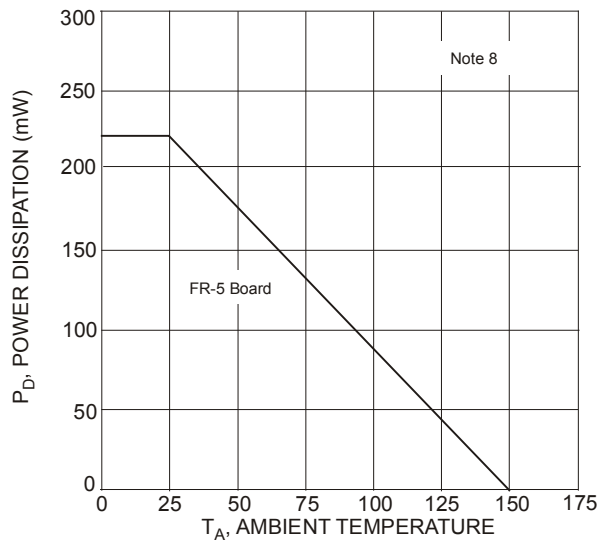


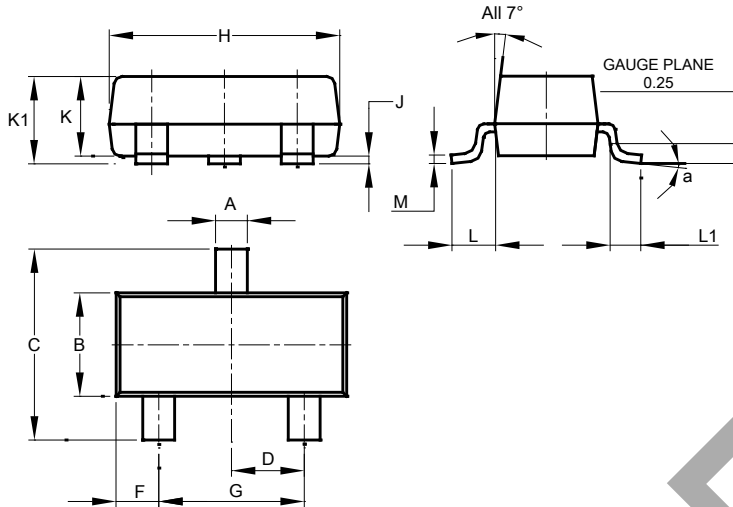
Figure 5 Pulse Rating Curve,  $P_{pk(NOM)}$  (W) vs. Pulse Width (ms)

Power is defined as  $P_{pk(NOM)} = V_{BR(NOM)} \times I_{pp}$   
where  $V_{BR(NOM)}$  is the nominal breakdown voltage

## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

**SOT23**

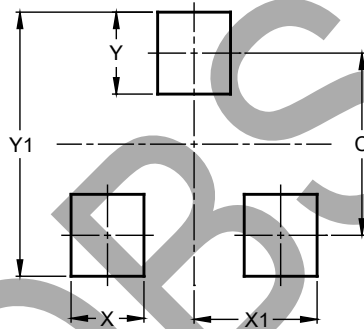


SOT23			
Dim	Min	Max	Typ
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.890	1.00	0.975
K1	0.903	1.10	1.025
L	0.45	0.61	0.55
L1	0.25	0.55	0.40
M	0.085	0.150	0.110
a	0°	8°	—
All Dimensions in mm			

## Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

**SOT23**



Dimensions	Value (in mm)
C	2.0
X	0.8
X1	1.35
Y	0.9
Y1	2.9

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