Power Metal Strip® Battery Shunt Resistor W/Molded Enclosure Very Low Value (100 μΩ)

FEATURES

- High power to resistor size ratio
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Solid metal manganese-copper alloy resistive element with low TCR (< 20 ppm/°C)
- Molded enclosure allows for easy PCB connection
- Includes 4-pin female connector that mates with a Molex type MX150 #33472-0401 connector
- Very low inductance (< 5 nH)
- Low thermal EMF (< 3 μV/°C)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free
RoHS COMPLIANT
HALOGEN FREE GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70\,°C}$ W	TOLERANCE %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE (1) Ω	WEIGHT (typical) g
WSBM8518	8518	36	5.0	0.0001	100μ	60

Note

(1) Other values may be available, contact factory

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 225
Temperature coefficient (element material)	ppm/°C	± 20
Operating temperature range	°C	-65 to +170
Thermal EMF	μV/°C	< 3
Inductance	nH	< 5
Maximum current rating	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION

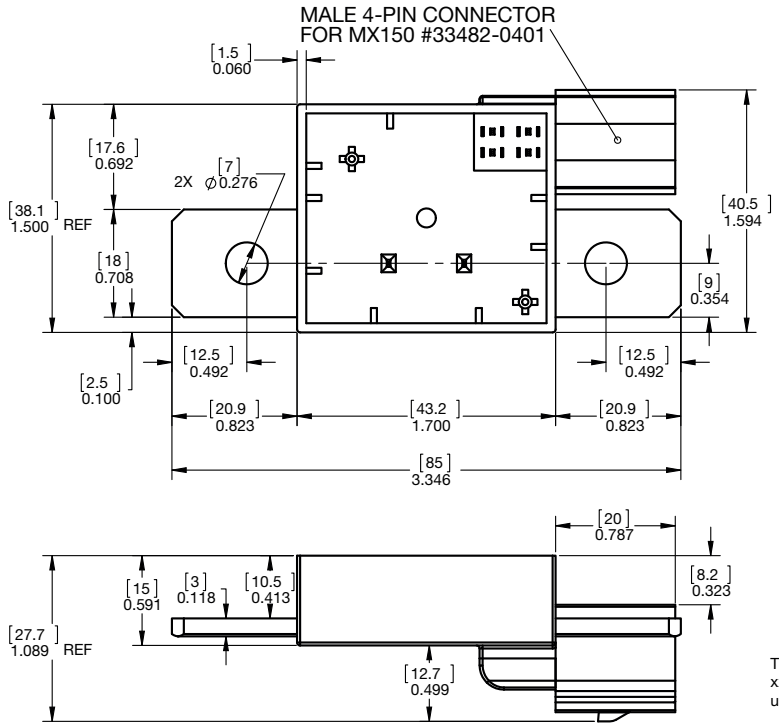
GLOBAL PART NUMBERING: WSBM8518L1000JK (WSBM8518, 0.000100 Ω, ± 5 %)

W	S	B	M	8	5	1	8	L	1	0	0	0	J	K		

GLOBAL MODEL (8 digits)	RESISTANCE VALUE (5 digits)	TOLERANCE CODE (1 digit)	PACKAGING CODE (1 digit)	SPECIAL (up to 2 digits)
WSBM8518	**L** = mΩ **L1000** = 0.000100 Ω	**J** = ± 5.0 %	**K** = bulk pack	(Dash number) From **1 to 99** as applicable

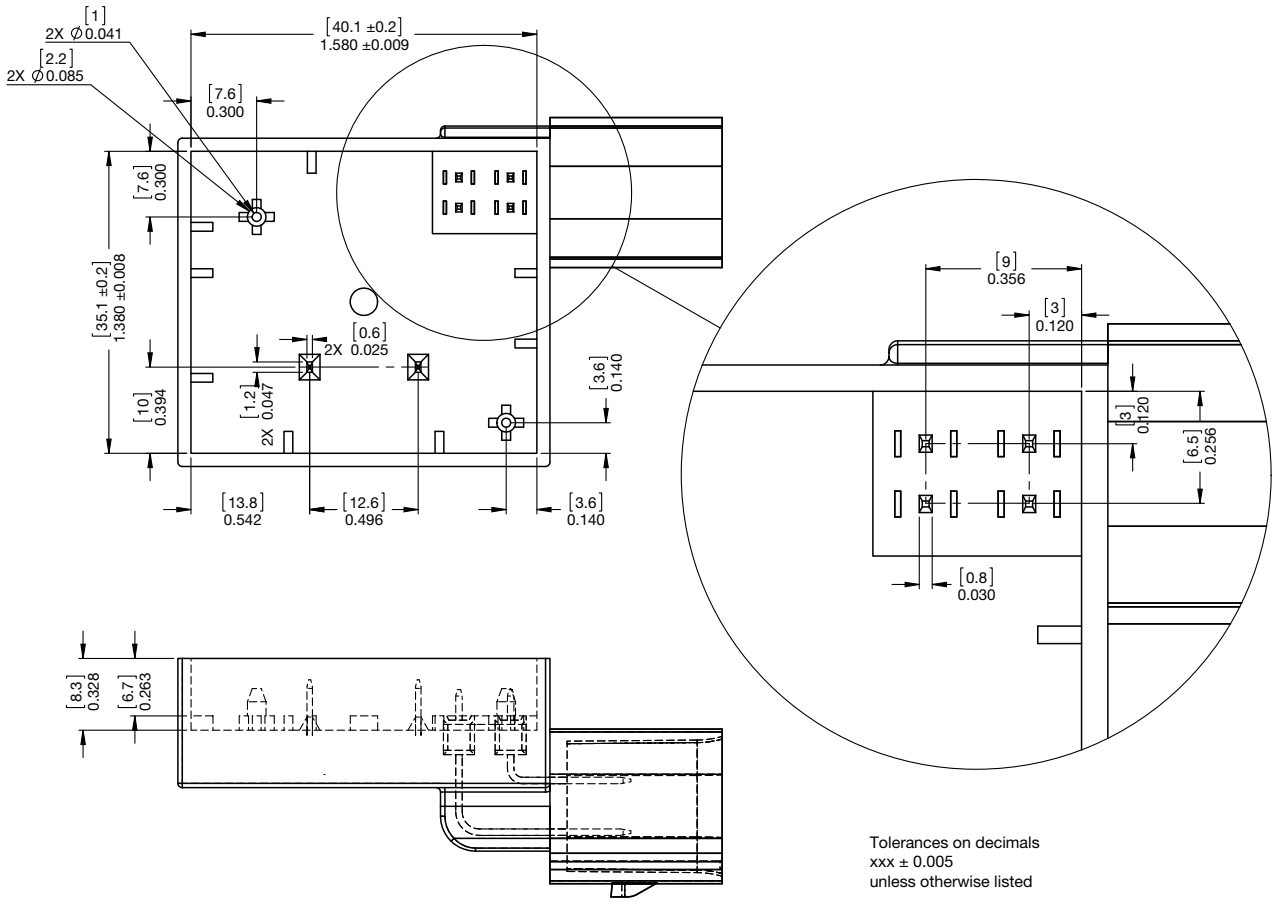
For technical questions, contact: ww2cresistors@vishay.com

EXTERNAL DIMENSIONS in inches [millimeters]



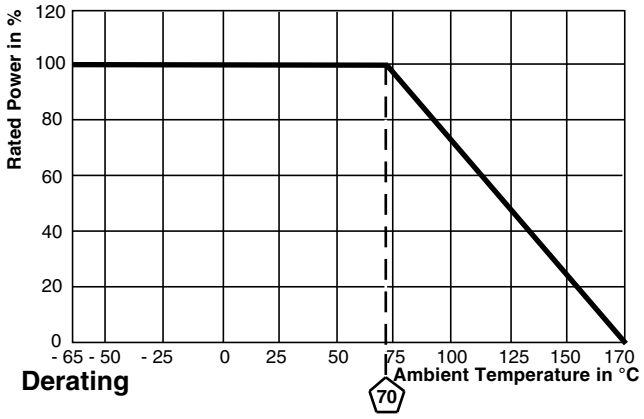
Tolerances on decimals
xxx ± 0.005
unless otherwise listed

INTERNAL DIMENSIONS in inches [millimeters]



Tolerances on decimals
xxx ± 0.005
unless otherwise listed

DERATING



PERFORMANCE		
TEST	**CONDITIONS OF TEST**	**TEST LIMITS**
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± 0.5 % Δ*R*
Short time overload	5 x rated power for 5 s	± 0.5 % Δ*R*
Low temperature operation	-65 °C for 45 min	± 0.5 % Δ*R*
High temperature exposure	1000 h at + 170 °C	± 1.0 % Δ*R*
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± 0.5 % Δ*R*
Mechanical shock	100 *g*'s for 6 ms, 5 pulses	± 0.5 % Δ*R*
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± 0.5 % Δ*R*
Load life	1000 h at +70 °C, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % Δ*R*
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± 0.5 % Δ*R*

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CRL0603-FW-R700ELF 65709-330JE PF2512FKF7W0R007L PR2512FKF7W0R003L PR2512FKF7W0R005L PF2512FKF7W0R006L PF2512FKF7W0R033L CD2015FC-0.10-1% PR2512FKF7W0R004L RC1005F124CS RL73K3AR56JTDF RL7520WT-R001-F RL7520WT-R009-G RL7520WT-R020-F RLP73N1ER43JTD LRC-LR2512LF-01-R820J WR06X104JGLJ TL2BR01F 65709-330 SP1R12J RL7520WT-R039-G PF1206FRF7W0R02L RL7520WT-R002-F RL7520WT-R047-F RL7520WT-R005-F KRL1632E-C-R200-F-T5 KRL1632E-C-R200-F-T1 Y14880R02000B9R RLP73M1ER051FTDF RLP73M2AR051FTDF RLP73M2AR075FTDF RLP73K2A1R0FTDF RLP73M1JR051FTDF RLP73N1JR47FTDF SR731ERTTP5R10F SR731ERTTP100J SR731ERTTP6R80F SR731ERTTP4R70F SR731ERTTP2R20F SR731ERTTP3R90F SR731ERTTP1R00F SR731ERTTP10R0F SR731ERTTP2R00F SR731ERTTP8R20F SR731ERTTP3R9J SR731ERTTP8R2J SR731ERTTP2R0J SR731ERTTP4R7J SR731ERTTP9R1J SR731ERTTP1R0J