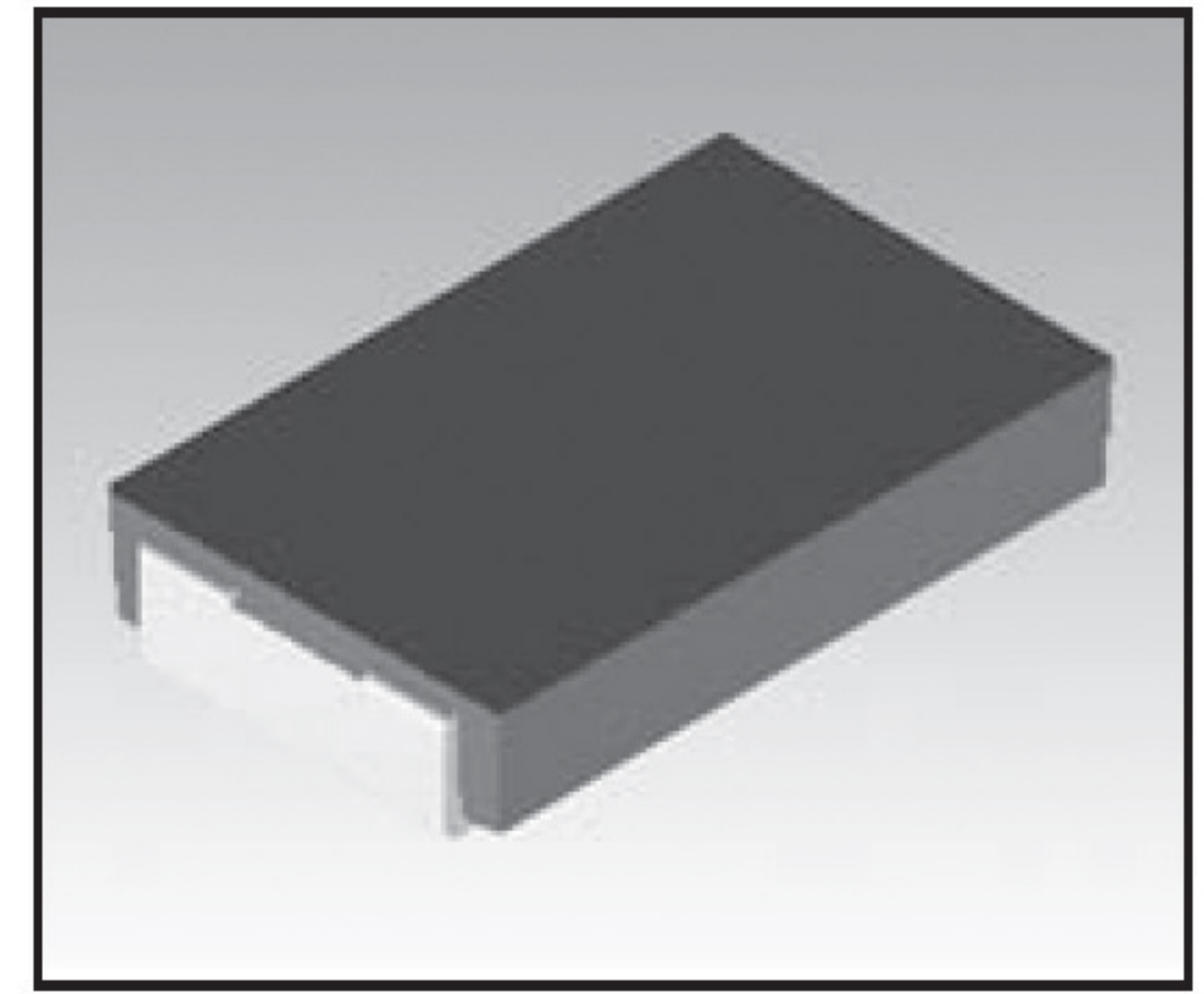


Power Metal Strip Resistors, Low Value (SMD)

Molded high temperature encapsulation. Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers. Proprietary processing technique produces extremely low resistance values. All welded construction. Solid metal Nickel-chrome or Manganese-copper alloy resistive element. 60/40 tin/lead copper terminations. Very low inductance 0.5nH to 5nH. Excellent frequency response to 50MHz. Low thermal EMF. Lead(Pb)-free version is RoHS compliant.



GENERAL SPECIFICATIONS

Model	Power Rating at 70°C[W]	Working Voltage Max.[V]	Resistance Range[Ω]		Temperature coefficient [ppm/°C]
			±0.5%	±1.0%	
WSR2	2.0	$\sqrt{P \times R}$	0.01 ~ 1.0	0.001 ~ 1.0	0.005Ω~0.0099Ω : ±110
WSR3	*3.0		0.01 ~ 0.2	0.001 ~ 0.2	0.010Ω~1.0Ω : ±75
WSR5	*5.0		0.01 ~ 0.3	0.0075 ~ 0.3	0.0075Ω~0.0099Ω : ±110 0.01Ω~0.3Ω : ±75

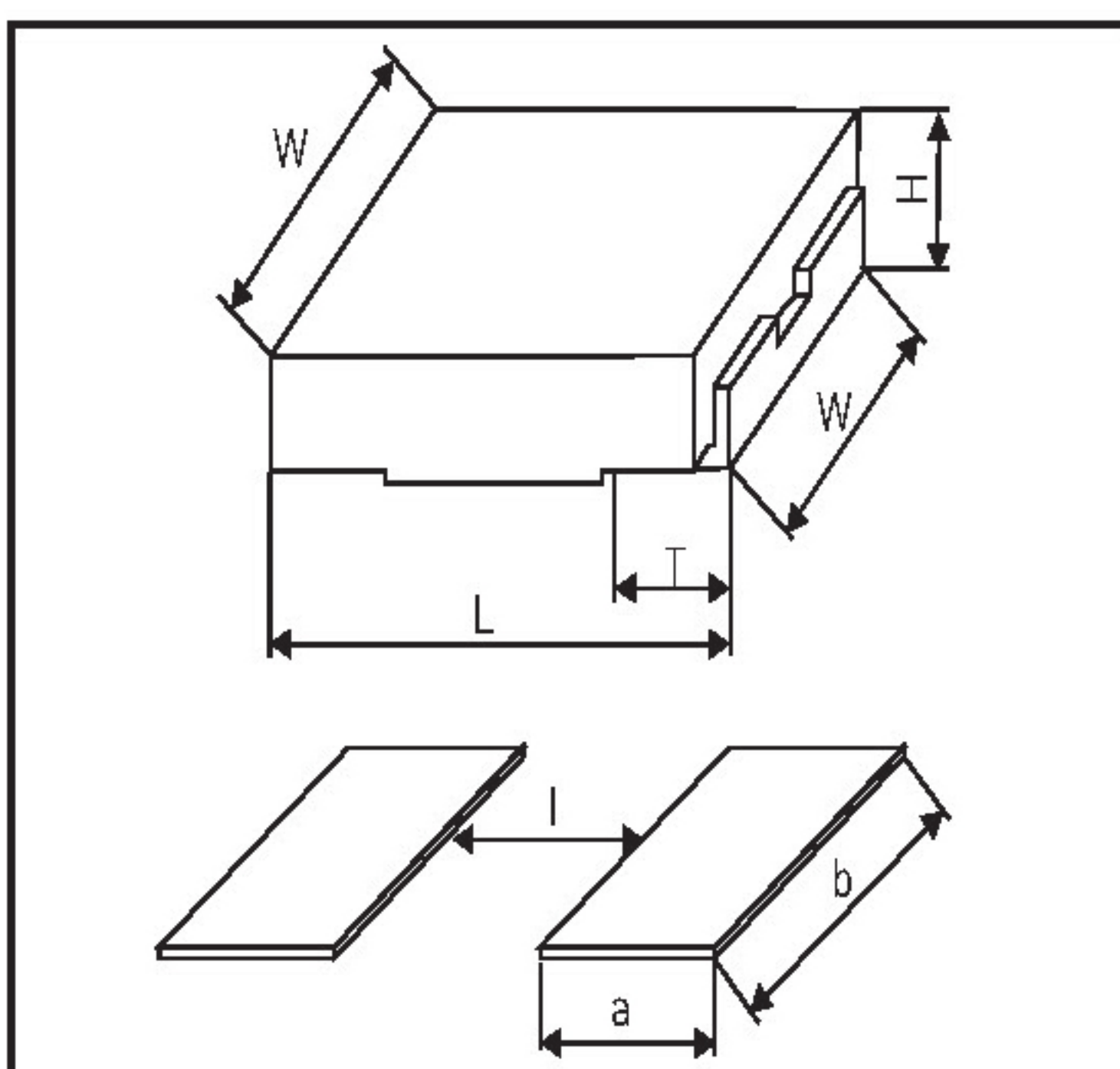
*1) The WSR3 requires a minimum of 1050 sq. mil. circuit traces connecting to the recommended solder pad
 *2) The WSR5 is rated at 5 watts with terminal temperature maintained ≤120°C

CHARACTERISTICS

Values in [] mean change in Ω after test

Operating Temperature Range				-65°C~+275°C
Insulation Resistance				minimum 10GΩ
Dielectric Withstanding Voltage				> 500 VAC
Short Time Overload	±[0.5%+0.0005Ω]ΔR	±[2.0%+0.0005Ω]ΔR	WSR2:5×rated power WSR3:4×rated power WSR5:3×rated power	for 5 sec.
Moisture Resistance	±[0.5%+0.0005Ω]ΔR	±[0.5%+0.0005Ω]ΔR	MIL-STD-202, Method 106, 0% Power 7a and 7b not required	
Thermal Shock	WSR2 ±[0.5%+0.0005Ω]ΔR	WSR3, WSR5 ±[0.5%+0.0005Ω]ΔR	-55°C ~ +150°C 1000cycles 15 minutes at each extreme	
Mechanical Shock	±[0.5%+0.0005Ω]ΔR	±[0.5%+0.0005Ω]ΔR	100g's for 6 milliseconds, 5 pulses	
Vibration	±[0.5%+0.0005Ω]ΔR	±[0.5%+0.0005Ω]ΔR	Frequency varied 10~2000 Hz in 1minutes, 3directions,12hours	
Low Temperature Storage	±[0.5%+0.0005Ω]ΔR	±[0.5%+0.0005Ω]ΔR	-65°C For 24hours	
High Temperature Exposure	±[1.0%+0.0005Ω]ΔR	±[1.0%+0.0005Ω]ΔR	1000 hours at +275°C	
Resistance to Solder Heat	±[0.5%+0.0005Ω]ΔR	±[0.5%+0.0005Ω]ΔR	+260°C Solder, 10~12 sec. dwell, 25mm/sec. emergence	
Bias Moisture Resistance	±[0.5%+0.0005Ω]ΔR	±[0.5%+0.0005Ω]ΔR	+85°C, 85%RH, 10% Bias, 1000hours	
Load Life	±[1.0%+0.0005Ω]ΔR	±[2.0%+0.0005Ω]ΔR	1000 hours at rated power, +70 °C, 1.5hours on, 0.5hours off	

DIMENSIONS [mm]

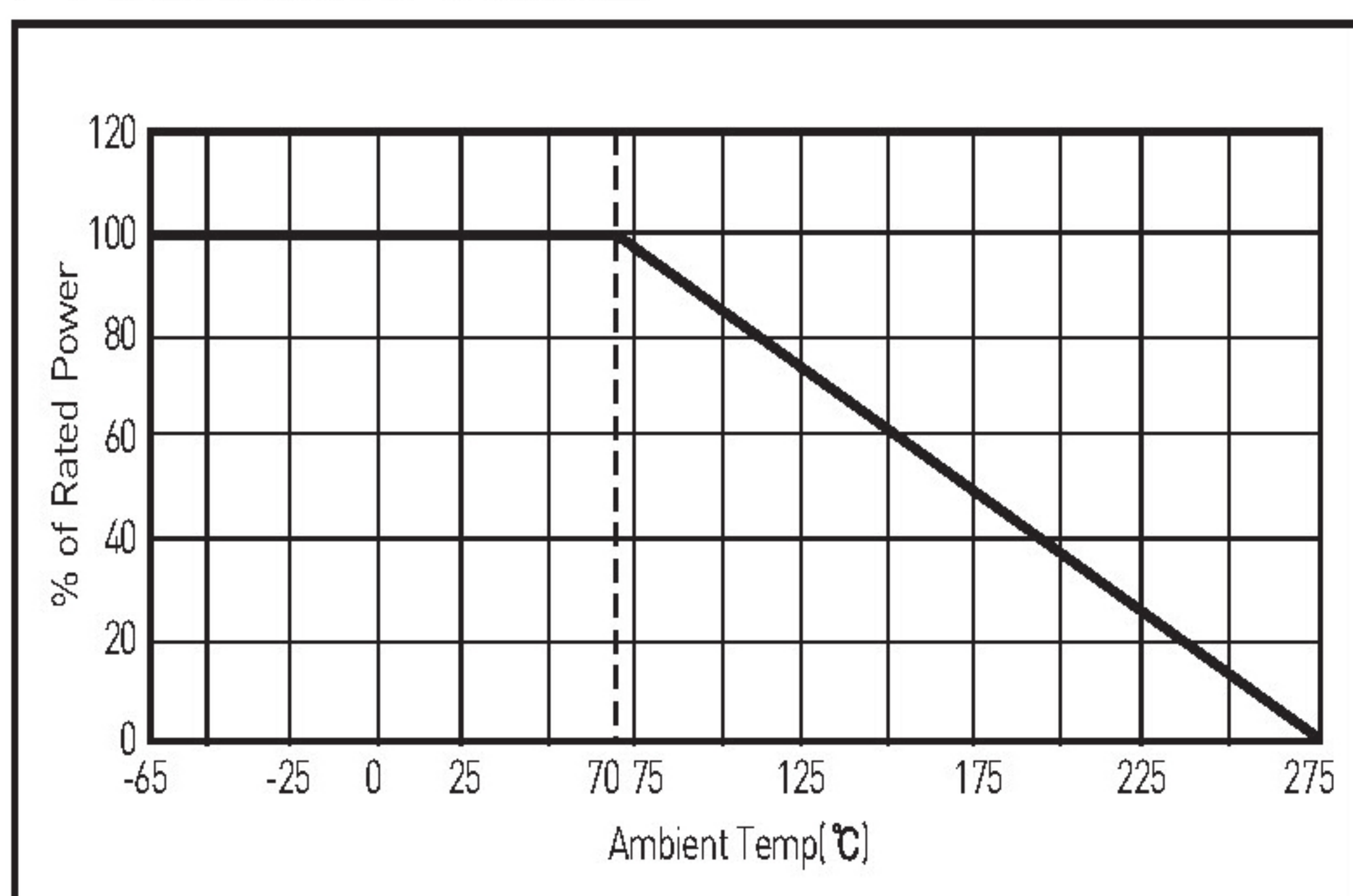


SOLDER PAD DIMENSIONS

Model	Dimensions [mm]				
	L	H	T	W	W1
WSR2	11.56±0.813	2.41±0.127	2.54±0.254	6.98±0.127	5.46±0.127
WSR3					
WSR5					

Model	Solder Pad Dimensions [mm]		
	a	b	c
WSR2	3.94	5.84	5.21
WSR3			
WSR5			

DERATING CURVE



ORDERING INFORMATION

