

1. 単色発光タイプです。
2. 外形寸法は1.6(L)×0.8(W)×0.8(H)mmで世界最小の超小型サイズです。
3. 発光色は標準輝度タイプが赤・橙・黄・黄緑・緑・新緑・桃緑の7色。高輝度タイプが赤・橙の2色、超高輝度タイプは赤の1色です。

1. Mono-color type
2. Dimensions: 1.6(L)×0.8(W)×0.8(H)mm, being an ultra small and the world smallest size.
3. Standard brightness type has seven colors such as red, orange, yellow, yellow green, green, fresh green and pure green. Super brightness type has two colors of red and orange. Ultra brightness type has one color of red.

(Ta 25°C)

シリーズ Series	Pd (mW)	I _F (mA)	I _{RP} (mA)	V _R (V)	Top (°C)	Tst (°C)
CL-190	50	20	100 ^{※1}	5	-25~+80	-30~+85

※1 Condition for use is pulse of 1/4 duty and 0.1msec width

(Ta 25°C)

部品コード Code for parts	発光色 Lighting color	V _F			λ_p typ (nm)	$\Delta\lambda$ typ (nm)	I _V		
		I _F (mA)	typ (V)	max (V)			I _F (mA)	min (mcd)	typ (mcd)
CL-190R	Red	20	2.2	2.6	700	100	20	1.0	2.4
CL-190D	Orange	20	2.2	2.6	605	40	20	4.5	13.0
CL-190Y	Yellow	20	2.1	2.6	589	40	20	5.0	12.0
CL-190YG	Yellow green	20	2.2	2.6	570	30	20	10.0	35.0
CL-190G	Green	20	2.2	2.6	567	26	20	5.0	20.0
CL-190FG	Fresh green	20	2.2	2.6	560	26	20	4.5	13.0
CL-190PG	Pure green	20	2.2	2.6	557	24	20	2.0	6.0
CL-1906R	Super brightness red	20	2.0	2.6	660	40	20	3.2	9.0
CL-1906D	Super brightness orange	20	2.0	2.6	630	40	20	4.5	13.0
CL-190UR	Ultra brightness red	20	1.8	2.6	660	20	20	7.0	25.0

1-41-17

CITILED®

CL-190シリーズ

単位/Unit: mm
寸法公差/Tolerance: ± 0.1

The following soldering patterns are recommended for reflow and dip soldering:

For yellow, combine:

For dip soldering



Figure 1 displays ten graphs showing the typical characteristics of the CL-9000 series, arranged in two rows of five. The graphs are labeled as follows:

- Top Row (CL-9000 series):**
 - I-V Characteristics:** Logarithmic plot of current I (mA) vs. voltage V (V). Curves for CL-9000, CL-9001, CL-9002, CL-9003, CL-9004, CL-9005, CL-9006, CL-9007, CL-9008, CL-9009, CL-9010, CL-9011, CL-9012, CL-9013, CL-9014, CL-9015, CL-9016, CL-9017, CL-9018, CL-9019, CL-9020, CL-9021, CL-9022, CL-9023, CL-9024, CL-9025, CL-9026, CL-9027, CL-9028, CL-9029, CL-9030, CL-9031, CL-9032, CL-9033, CL-9034, CL-9035, CL-9036, CL-9037, CL-9038, CL-9039, CL-9040, CL-9041, CL-9042, CL-9043, CL-9044, CL-9045, CL-9046, CL-9047, CL-9048, CL-9049, CL-9050, CL-9051, CL-9052, CL-9053, CL-9054, CL-9055, CL-9056, CL-9057, CL-9058, CL-9059, CL-9060, CL-9061, CL-9062, CL-9063, CL-9064, CL-9065, CL-9066, CL-9067, CL-9068, CL-9069, CL-9070, CL-9071, CL-9072, CL-9073, CL-9074, CL-9075, CL-9076, CL-9077, CL-9078, CL-9079, CL-9080, CL-9081, CL-9082, CL-9083, CL-9084, CL-9085, CL-9086, CL-9087, CL-9088, CL-9089, CL-9090, CL-9091, CL-9092, CL-9093, CL-9094, CL-9095, CL-9096, CL-9097, CL-9098, CL-9099, CL-9100, CL-9101, CL-9102, CL-9103, CL-9104, CL-9105, CL-9106, CL-9107, CL-9108, CL-9109, CL-9110, CL-9111, CL-9112, CL-9113, CL-9114, CL-9115, CL-9116, CL-9117, CL-9118, CL-9119, CL-9120, CL-9121, CL-9122, CL-9123, CL-9124, CL-9125, CL-9126, CL-9127, CL-9128, CL-9129, CL-9130, CL-9131, CL-9132, CL-9133, CL-9134, CL-9135, CL-9136, CL-9137, CL-9138, CL-9139, CL-9140, CL-9141, CL-9142, CL-9143, CL-9144, CL-9145, CL-9146, CL-9147, CL-9148, CL-9149, CL-9150, CL-9151, CL-9152, CL-9153, CL-9154, CL-9155, CL-9156, CL-9157, CL-9158, CL-9159, CL-9160, CL-9161, CL-9162, CL-9163, CL-9164, CL-9165, CL-9166, CL-9167, CL-9168, CL-9169, CL-9170, CL-9171, CL-9172, CL-9173, CL-9174, CL-9175, CL-9176, CL-9177, CL-9178, CL-9179, CL-9180, CL-9181, CL-9182, CL-9183, CL-9184, CL-9185, CL-9186, CL-9187, CL-9188, CL-9189, CL-9190, CL-9191, CL-9192, CL-9193, CL-9194, CL-9195, CL-9196, CL-9197, CL-9198, CL-9199, CL-9200, CL-9201, CL-9202, CL-9203, CL-9204, CL-9205, CL-9206, CL-9207, CL-9208, CL-9209, CL-9210, CL-9211, CL-9212, CL-9213, CL-9214, CL-9215, CL-9216, CL-9217, CL-9218, CL-9219, CL-9220, CL-9221, CL-9222, CL-9223, CL-9224, CL-9225, CL-9226, CL-9227, CL-9228, CL-9229, CL-9230, CL-9231, CL-9232, CL-9233, CL-9234, CL-9235, CL-9236, CL-9237, CL-9238, CL-9239, CL-9240, CL-9241, CL-9242, CL-9243, CL-9244, CL-9245, CL-9246, CL-9247, CL-9248, CL-9249, CL-9250, CL-9251, CL-9252, CL-9253, CL-9254, CL-9255, CL-9256, CL-9257, CL-9258, CL-9259, CL-9260, CL-9261, CL-9262, CL-9263, CL-9264, CL-9265, CL-9266, CL-9267, CL-9268, CL-9269, CL-9270, CL-9271, CL-9272, CL-9273, CL-9274, CL-9275, CL-9276, CL-9277, CL-9278, CL-9279, CL-9280, CL-9281, CL-9282, CL-9283, CL-9284, CL-9285, CL-9286, CL-9287, CL-9288, CL-9289, CL-9290, CL-9291, CL-9292, CL-9293, CL-9294, CL-9295, CL-9296, CL-9297, CL-9298, CL-9299, CL-9300, CL-9301, CL-9302, CL-9303, CL-9304, CL-9305, CL-9306, CL-9307, CL-9308, CL-9309, CL-9310, CL-9311, CL-9312, CL-9313, CL-9314, CL-9315, CL-9316, CL-9317, CL-9318, CL-9319, CL-9320, CL-9321, CL-9322, CL-9323, CL-9324, CL-9325, CL-9326, CL-9327, CL-9328, CL-9329, CL-9330, CL-9331, CL-9332, CL-9333, CL-9334, CL-9335, CL-9336, CL-9337, CL-9338, CL-9339, CL-9340, CL-9341, CL-9342, CL-9343, CL-9344, CL-9345, CL-9346, CL-9347, CL-9348, CL-9349, CL-9350, CL-9351, CL-9352, CL-9353, CL-9354, CL-9355, CL-9356, CL-9357, CL-9358, CL-9359, CL-9360, CL-9361, CL-9362, CL-9363, CL-9364, CL-9365, CL-9366, CL-9367, CL-9368, CL-9369, CL-9370, CL-9371, CL-9372, CL-9373, CL-9374, CL-9375, CL-9376, CL-9377, CL-9378, CL-9379, CL-9380, CL-9381, CL-9382, CL-9383, CL-9384, CL-9385, CL-9386, CL-9387, CL-9388, CL-9389, CL-9390, CL-9391, CL-9392, CL-9393, CL-9394, CL-9395, CL-9396, CL-9397, CL-9398, CL-9399, CL-9400, CL-9401, CL-9402, CL-9403, CL-9404, CL-9405, CL-9406, CL-9407, CL-9408, CL-9409, CL-9410, CL-9411, CL-9412, CL-9413, CL-9414, CL-9415, CL-9416, CL-9417, CL-9418, CL-9419, CL-9420, CL-9421, CL-9422, CL-9423, CL-9424, CL-9425, CL-9426, CL-9427, CL-9428, CL-9429, CL-9430, CL-9431, CL-9432, CL-9433, CL-9434, CL-9435, CL-9436, CL-9437, CL-9438, CL-9439, CL-9440, CL-9441, CL-9442, CL-9443, CL-9444, CL-9445, CL-9446, CL-9447, CL-9448, CL-9449, CL-9450, CL-9451, CL-9452, CL-9453, CL-9454, CL-9455, CL-9456, CL-9457, CL-9458, CL-9459, CL-9460, CL-9461, CL-9462, CL-9463, CL-9464, CL-9465, CL-9466, CL-9467, CL-9468, CL-9469, CL-9470, CL-9471, CL-9472, CL-9473, CL-9474, CL-9475, CL-9476, CL-9477, CL-9478, CL-9479, CL-9480, CL-9481, CL-9482, CL-9483, CL-9484, CL-9485, CL-9486, CL-9487, CL-9488, CL-9489, CL-9490, CL-9491, CL-9492, CL-9493, CL-9494, CL-9495, CL-9496, CL-9497, CL-9498, CL-9499, CL-9500, CL-9501, CL-9502, CL-9503, CL-9504, CL-9505, CL-9506, CL-9507, CL-9508, CL-9509, CL-9510, CL-9511, CL-9512, CL-9513, CL-9514, CL-9515, CL-9516, CL-9517, CL-9518, CL-9519, CL-9520, CL-9521, CL-9522, CL-9523, CL-9524, CL-9525, CL-9526, CL-9527, CL-9528, CL-9529, CL-9530, CL-9531, CL-9532, CL-9533, CL-9534, CL-9535, CL-9536, CL-9537, CL-9538, CL-9539, CL-9540, CL-9541, CL-9542, CL-9543, CL-9544, CL-9545