

598 SERIES

MicroLED® SMD LED Tri-Color 3735 PLCC-6

3.7 x 3.5 x 2.8mm

MECHANICAL / SPECIFICATIONS

Part Number: [598-8F10-313F](#)

Dimensions: 3.7 x 3.5 x 2.8mm

Lens color: Water Clear

Lens material: Epoxy

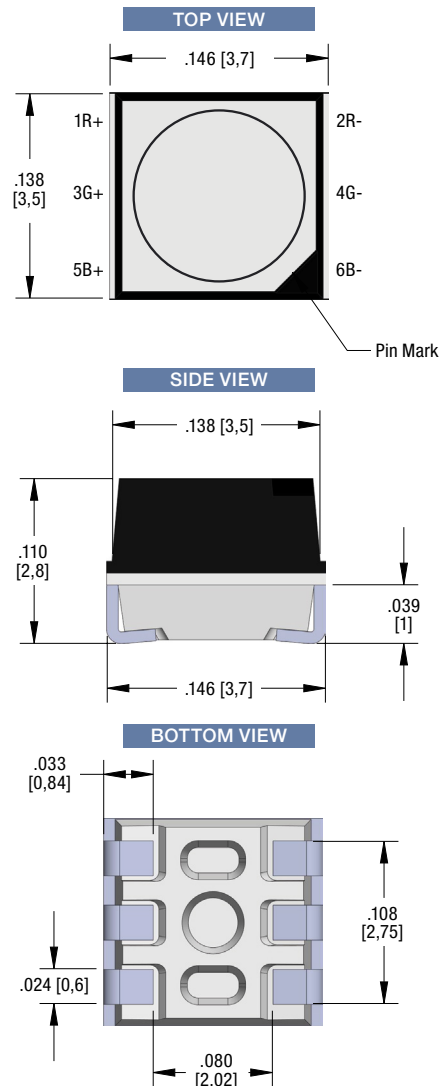
Standard packaging: 4000 pcs/reel

Moisture sensitivity level: 5a

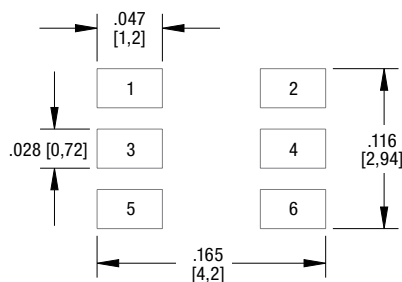
CERTIFICATIONS & RATINGS

RoHS Compliant

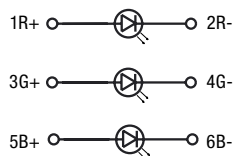
DIMENSIONS inches [mm]



RECOMMENDED PAD LAYOUT



LED SCHEMATIC



ABSOLUTE MAXIMUM RATINGS AT Ts=25°C

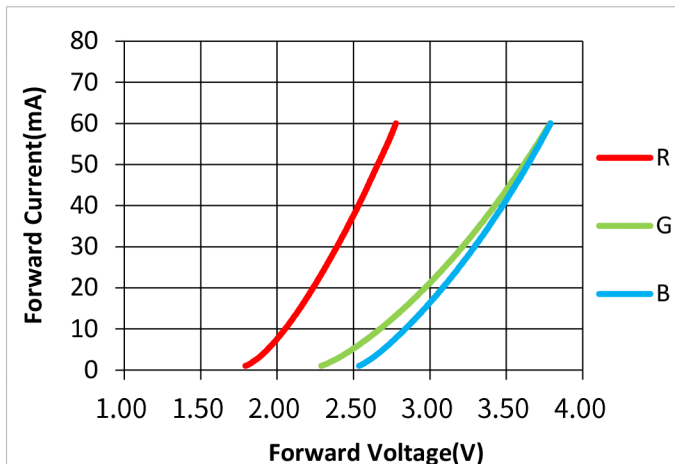
Symbol	Parameter	Ratings			Units
		R	G	B	
I_F	Forward Current	25	20	20	mA
V_R	Reverse Voltage	5	5	5	V
T_{OPR}	Operating Temperature	-30~+85			°C
T_{STQ}	Storage Temperature	-40~+100			°C
P_D	Power Dissipation	60	68	68	mW
T_J	Total Junction Temperature	105	105	105	°C
ESD	Electrostatic Discharge	1000V			

TYPICAL ELECTRICAL & OPTICAL CHARACTERISTICS (Ts=25°C)

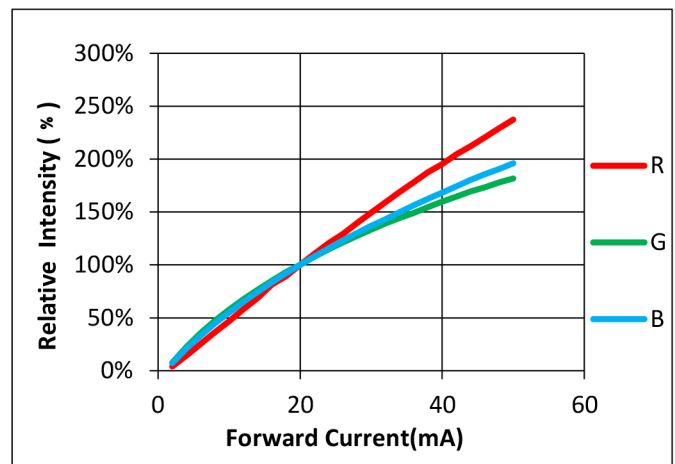
Items	Symbol	Test Condition	Value			Unit
			R	G	B	
Reverse Current	I _R	V _R =5V	6	6	6	μA
Forward Voltage	V _F (min)	IF=20mA	1.7	2.5	2.5	V
	V _F (max)		2.4	3.3	3.3	
Dominant Wavelength	λD		617~628	520~545	460~475	nm
			5nm per Bin	3nm per Bin	3nm per Bin	
Spectrum Radiation Bandwidth	Δλ		24	38	30	nm
Luminous Intensity	I _v (min)		575	1665	365	mcd
	I _v (typ)		860	2500	550	
	I _v (max)		1290	3750	825	
	BIN Range		1:1.3	1:1.3	1:1.3	
Viewing Angle	2θ½		110			deg

TYPICAL OPTO-ELECTRICAL CHARACTERISTICS CURVE

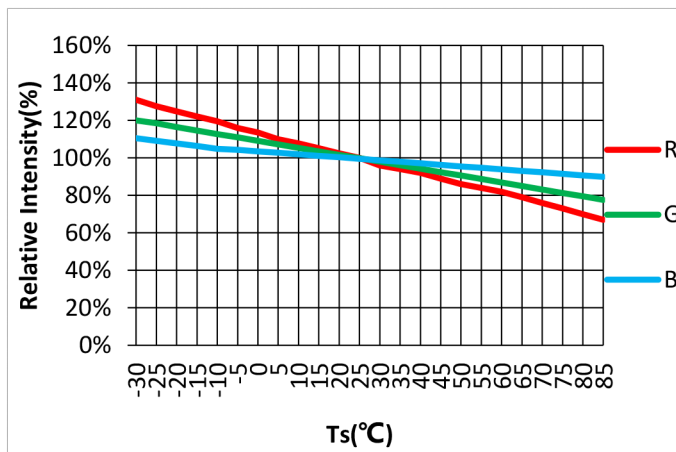
Forward Current vs Forward Voltage



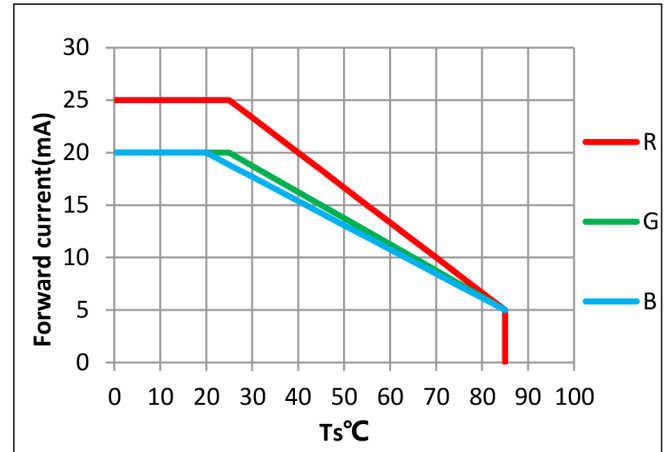
Forward Current vs Relative Intensity



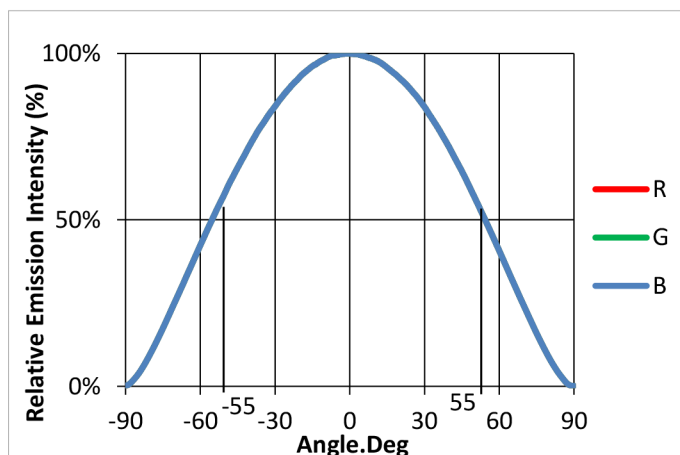
Luminous Intensity vs Ambient Temperature



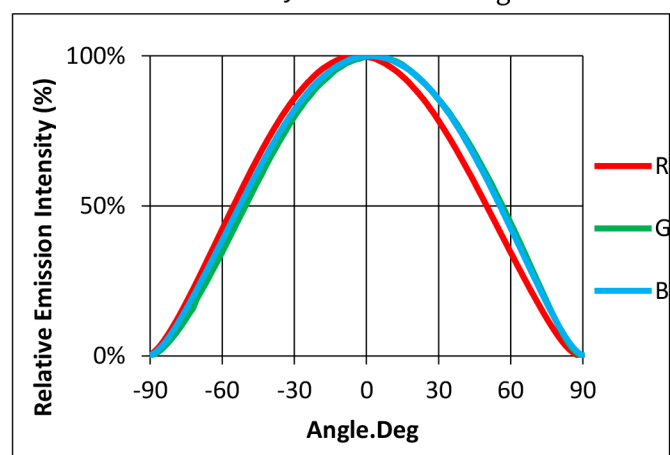
Solder Temperature vs Forward Current



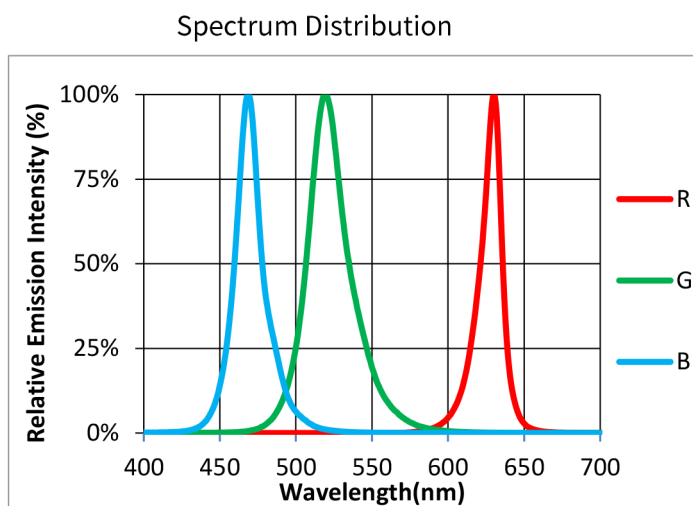
Directivity X-X radiation angle



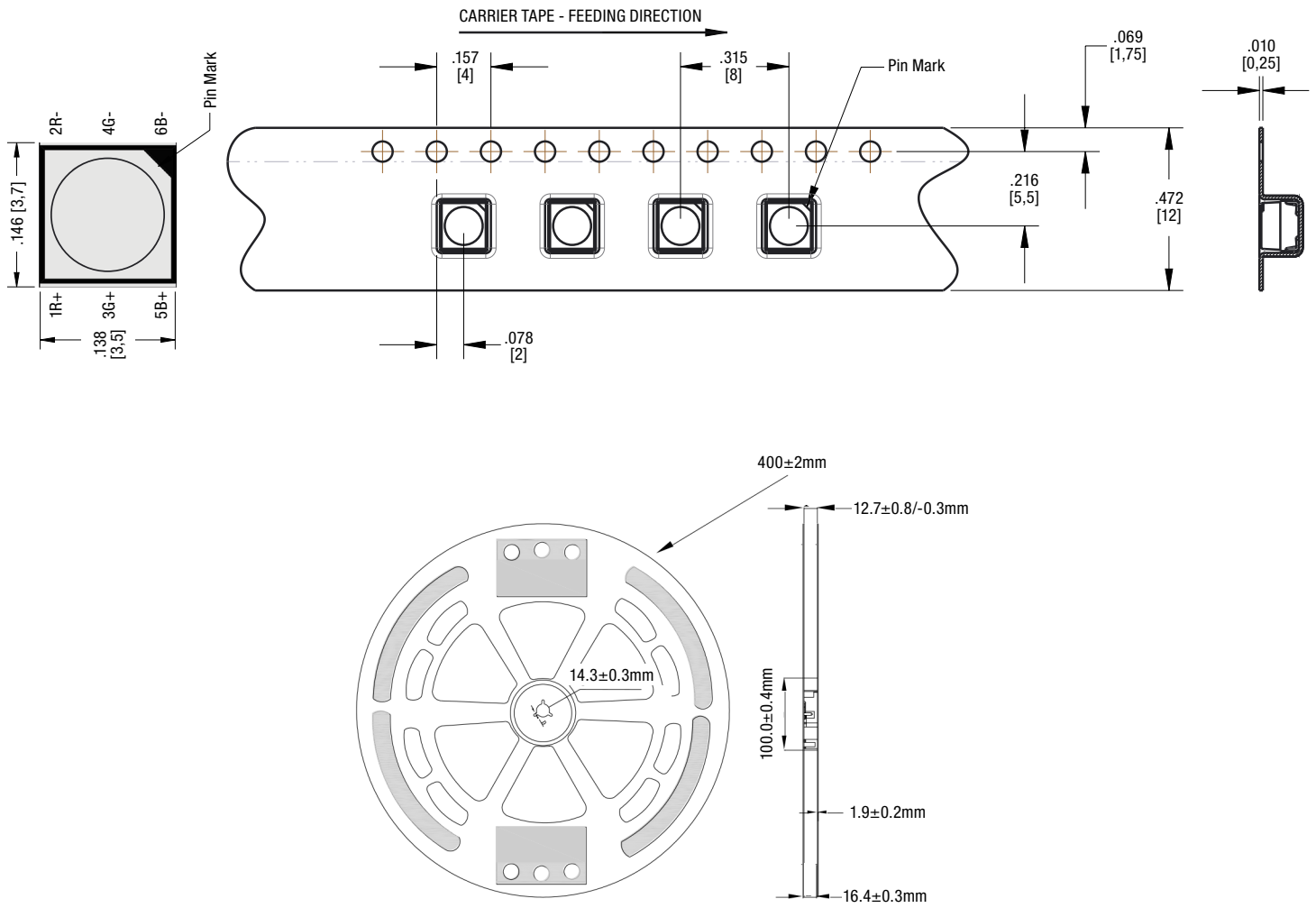
Directivity Y-Y radiation angle



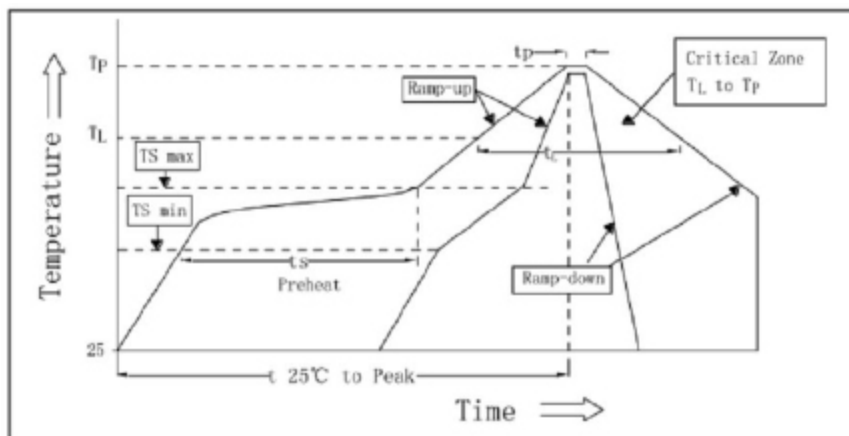
TYPICAL OPTO-ELECTRICAL CHARACTERISTICS CURVE



TAPE AND REEL SPECIFICATION



REFLOW SOLDERING



Average temperature rise speed (T _{smax} to T _p)	Max 4°C/s
Preheating: Minimum temperature (T _{smin})	150°C
Preheating: Max. temperature (T _{smin})	200°C
Preheating: Time (T _{smin} to T _{smax})	60s-120s
Time limited to maintain high temperature: The temperature	217°C
Time limited to maintain high temperature: The time	Max 60s
Peak/classification of temperature: (T _p)	250°C
Soldering time:	Max 10s
Ramp-down rate:	6°C/s max

Soldering notes:

1. Reflow soldering should not be done more than one times.