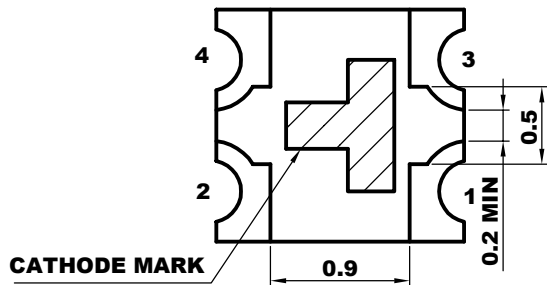
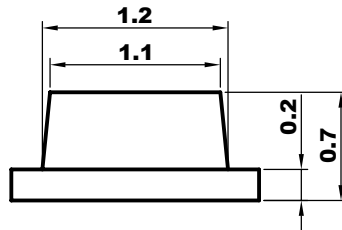
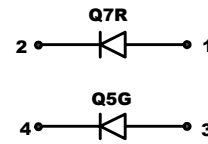
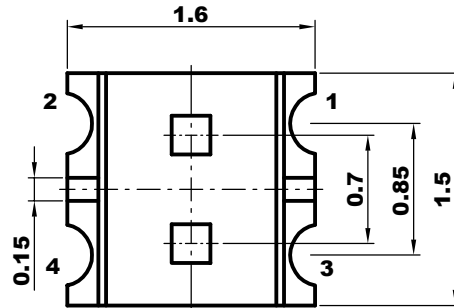




MB02-0605Q7RQ5GC

UNIT:MM

TOLERANCE:±0.25



MEET_SS00259_STANDARD	Emitting Color	Material	Lens Type	I _v (I _F = 20mA)		Viewing Angle
				MIN (mcd)	TYP (mcd)	
Part No.						2 θ 1/2
MB02-0605Q7RQ5GC	Super Brightness Red	AlGaInP	Water Clear	90	200	120°
	Super Brightness Green	AlGaInP		50	110	

APPROVE:

Sun

CHECKED:

K. J. D

DRAWN:

Jane

DATA NO:

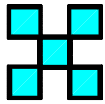
P-M-ES-AL011-HL-03

SCALE:

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DATE:

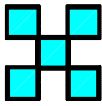
2006/01/14



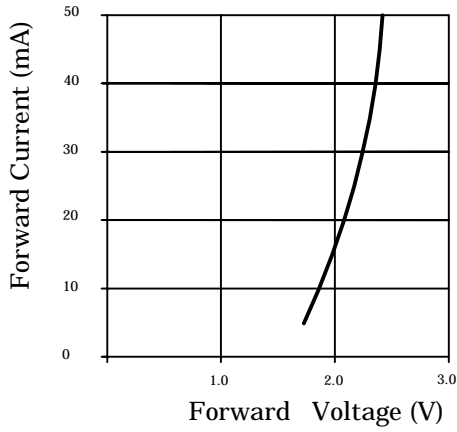
Q7R

Absolute maximum ratings (TA=25 °C)		Q7R Red (AlGaInP)	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	50	mA
Forward current(Peak) 1/10 Duty Cycle,0.1ms Pulse Width	I_{FP}	150	mA
Power dissipation	P_d	130	mW
LED LAMPS:			
Operating temperature	T_{OP}	-40~+85	°C
Storage temperature	T_{ST}	-40~+85	°C
LED DISPLAYS:			
Operating temperature	T_A	-40~+85	°C
Storage temperature	T_{STG}	-40~+85	°C

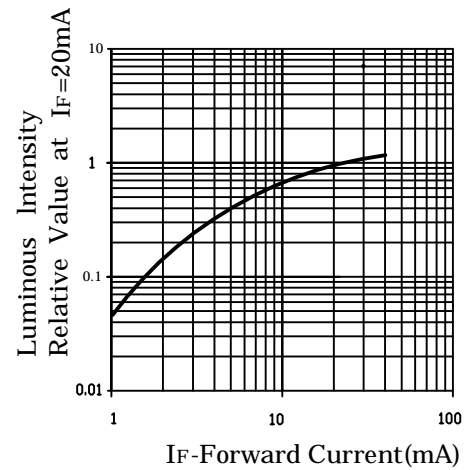
Operating characteristics (TA=25 °C)		Q7R Red (AlGaInP)	Unit
Forward voltage(typ.) $I_F = 20\text{mA}$	V_F	2.0	V
Forward voltage(max.) $I_F = 20\text{mA}$	V_F	2.6	V
Reverse current(max.) $V_R = 5\text{V}$	I_R	10	uA
Wavelength at dominant emission(typ.) $I_F = 20\text{mA}$	λ_D	630	nm
Wavelength at peak emission(typ.) $I_F = 20\text{mA}$	λ_P	650	nm
Spectral line half-width $I_F = 20\text{mA}$	$\Delta \lambda$	22	nm
Capacitance $V_F = 0\text{V}$, $f = 1\text{MHz}$	C	25	pF



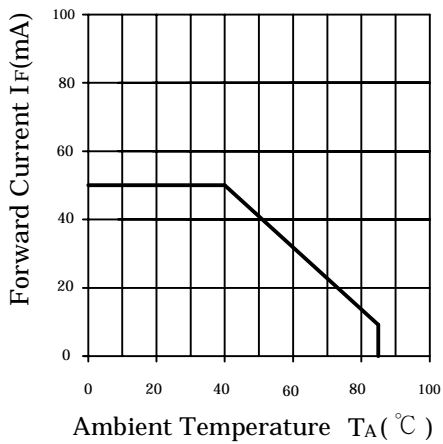
Q7R



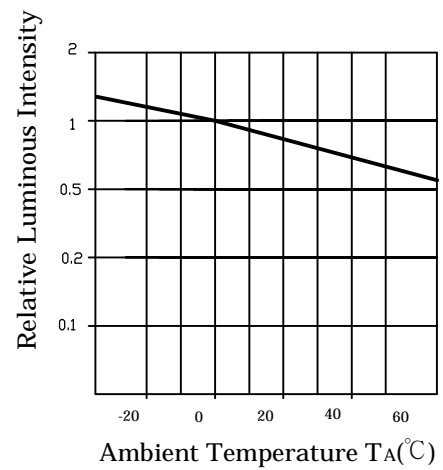
Forward Current Vs. Forward Voltage



Luminous Intensity Vs. Forward Current



Forward Current Derating Curve



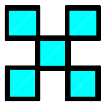
Luminous Intensity Vs. Ambient Temperature



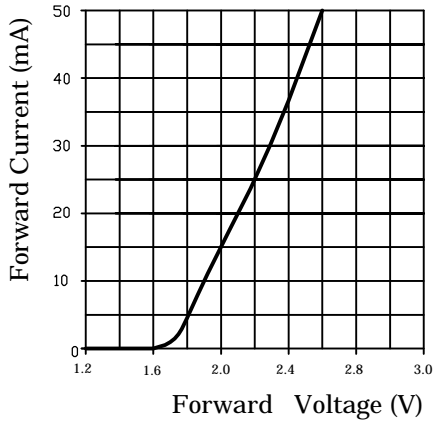
Q5G

Absolute maximum ratings (TA=25 °C)		Q5G Green (AlGaInP)	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	30	mA
Forward current(Peak) 1/10 Duty Cycle,0.1ms Pulse Width	I_{FP}	100	mA
Power dissipation	P_d	78	mW
LED LAMPS:			
Operating temperature	T_{OP}	-40~+85	°C
Storage temperature	T_{ST}	-40~+85	°C
LED DISPLAYS:			
Operating temperature	T_A	-40~+85	°C
Storage temperature	T_{STG}	-40~+85	°C

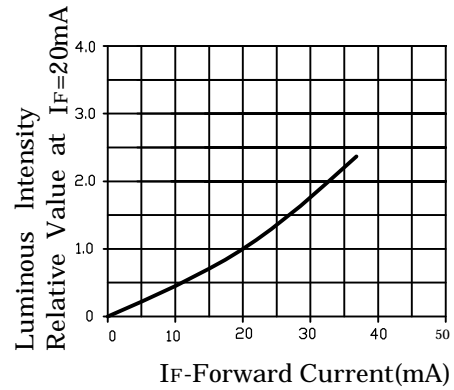
Operating characteristics (TA=25 °C)		Q5G Green (AlGaInP)	Unit
Forward voltage(typ.) $I_F = 20\text{mA}$	V_F	2.1	V
Forward voltage(max.) $I_F = 20\text{mA}$	V_F	2.6	V
Reverse current(max.) $V_R = 5\text{V}$	I_R	10	uA
Wavelength at dominant emission(typ.) $I_F = 20\text{mA}$	λ_D	572	nm
Wavelength at peak emission(typ.) $I_F = 20\text{mA}$	λ_P	574	nm
Spectral line half-width $I_F = 20\text{mA}$	$\Delta \lambda$	25	nm
Capacitance $V_F = 0\text{V}$, $f = 1\text{MHz}$	C	20	pF



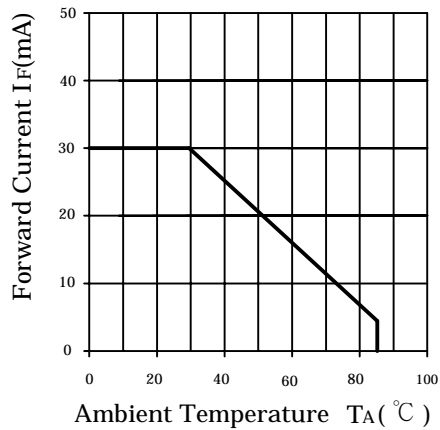
Q5G



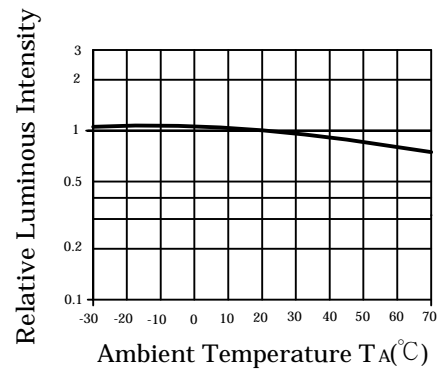
Forward Current Vs. Forward Voltage



Luminous Intensity Vs. Forward Current



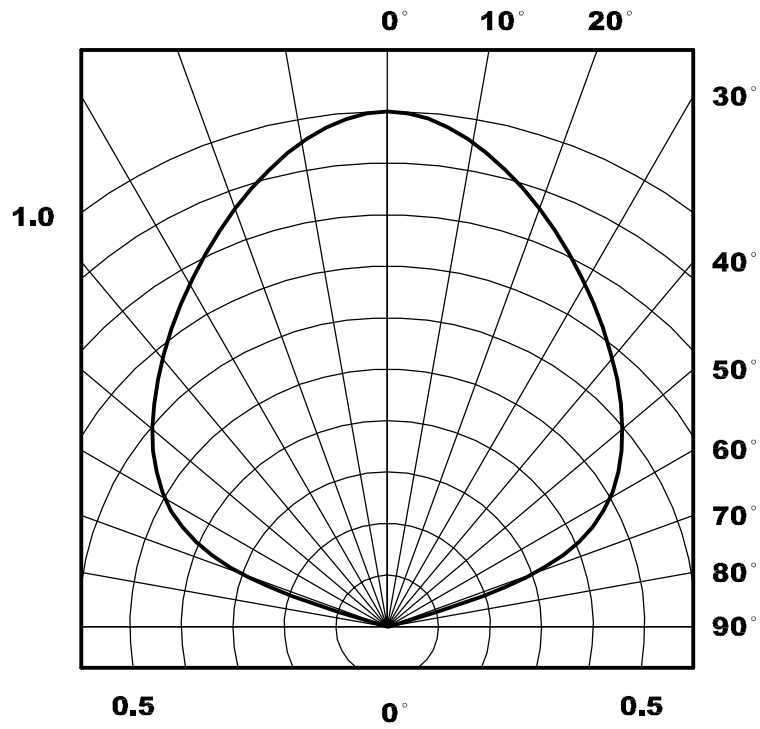
Forward Current Derating Curve



Luminous Intensity Vs. Ambient Temperature



120°



View Angle $2\theta_{1/2}=120^\circ$



HI-Light

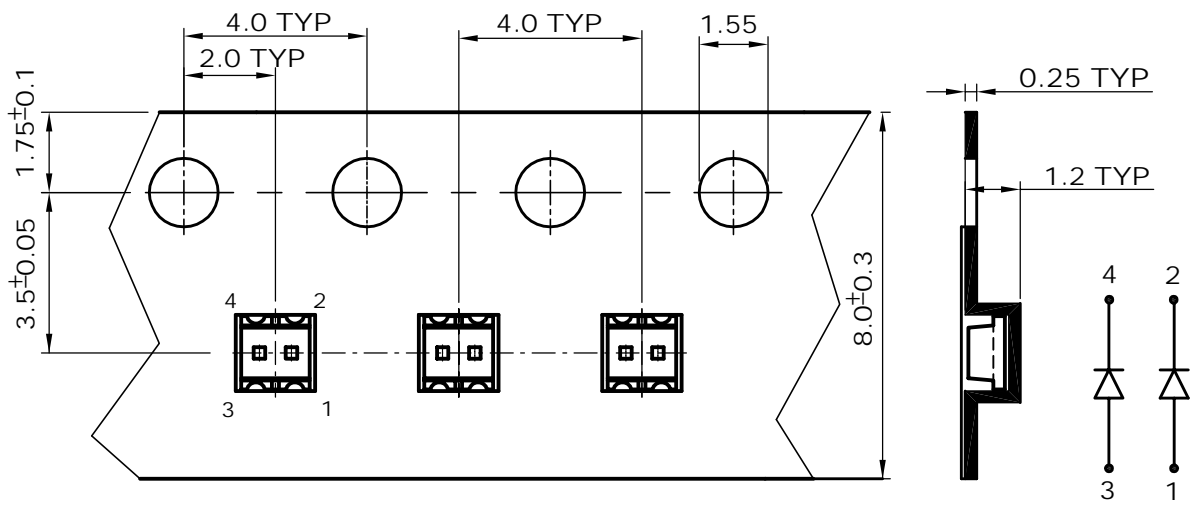
MB02-0605

UNIT:MM

TOLERANCE:±0.25

TYPE →

PACKAGE:2000 OR 1000PCS/REEL
REEL "T":14mmTYP

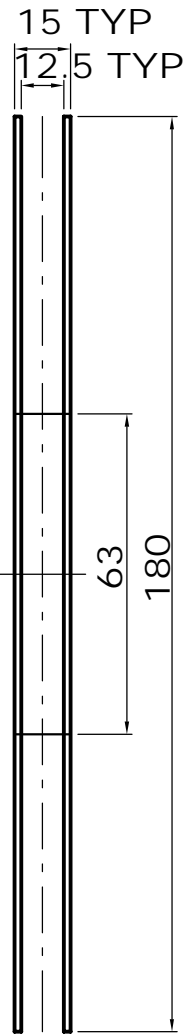
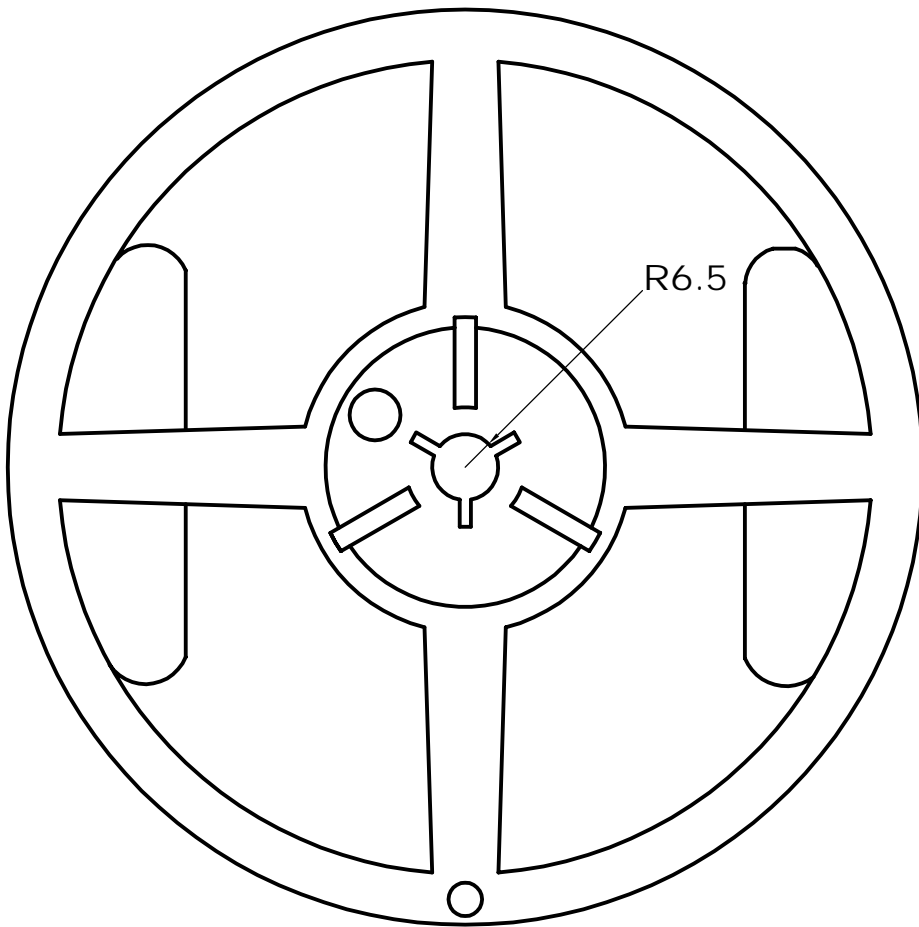




REEL SPECIFICATIONS

UNIT:MM

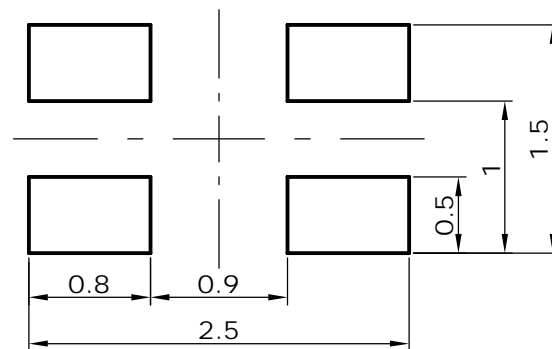
TOLERANCE:±0.25

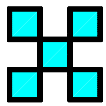




The following soldering patterns are recommended for reflow-soldering:

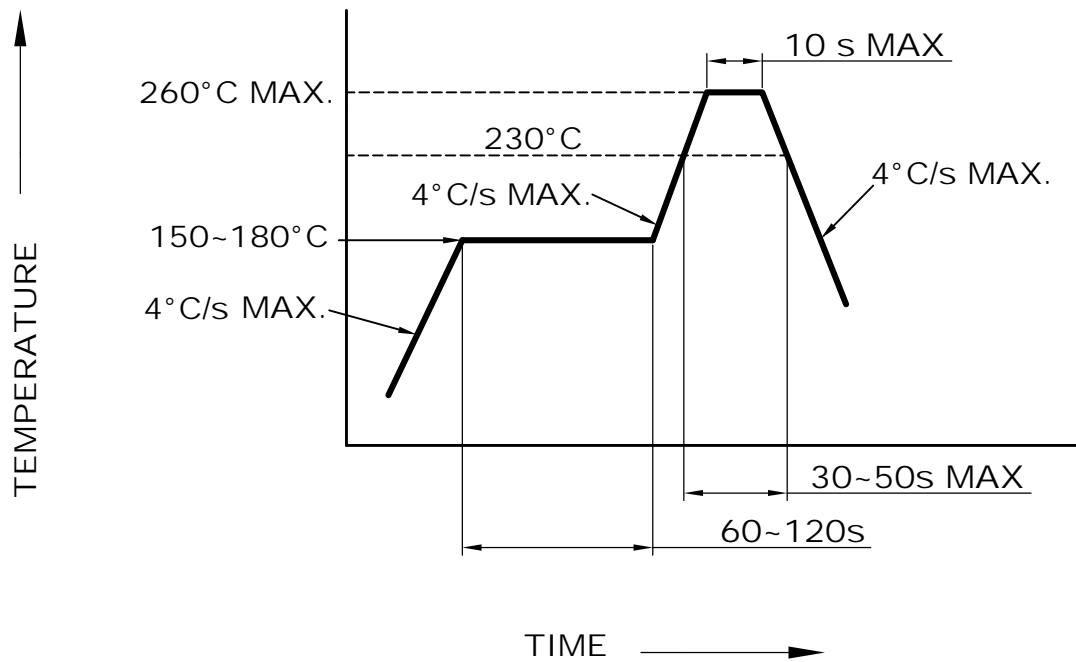
For reflow soldering



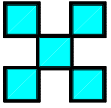


SMT REFLOW SOLDERING INSTRUCTIONS

SMT REFLOW SOLDERING INSTRUCTIONS



SMT Reflow soldering 260°C one cycle



SMD HANDLING AND APPLICATION PRECAUTIONS

STORAGE

(1.1) It is recommended to store the devices in accordance with the following conditions:

Humidity: 60%RH Max.

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

(1.2) Shelf life in sealed bag: 6 month at <5°C ~ 30°C and <60%RH.

After the package is opened, the products should be used within 72hrs.

Or they should be kept at $\leq 30\%RH$ in zip-locked sealed bags.

DRY PACK AND BAKING

SMD LEDs are MOISTURE SENSITIVE devices. Avoid absorbing moisture at any time during transportation and/or storage. It is recommended to bake before soldering when the pack is unsealed after 72 hrs, or any suspicious moisture being found. Bake devices in accordance with the following conditions:

(a) 50±3°C x (12~24hrs) and <5%RH, taped reel type

(b) 100±3°C x (45min~1hr), loose packing type, or

(c) 130±3°C x (15~30min), loose packing type

ELECTRIC STATIC DISCHARGE(ESD) PROTECTION

Materials with GaN, InGaN, AlInGaP are STATIC SENSITIVE devices. They will be packed in anti-static bags. ESD protection must be deliberately observed from the initial design stage. The static-electric discharge may result in severe malfunction of the devices. In the events of manual working in process, make sure the devices are well protected from ESD at any time. Surge before and during handling products.