

## Part Number Code

**PRODUCT CODE**      HI      3216      HRF T  
 HITANO SMD LED

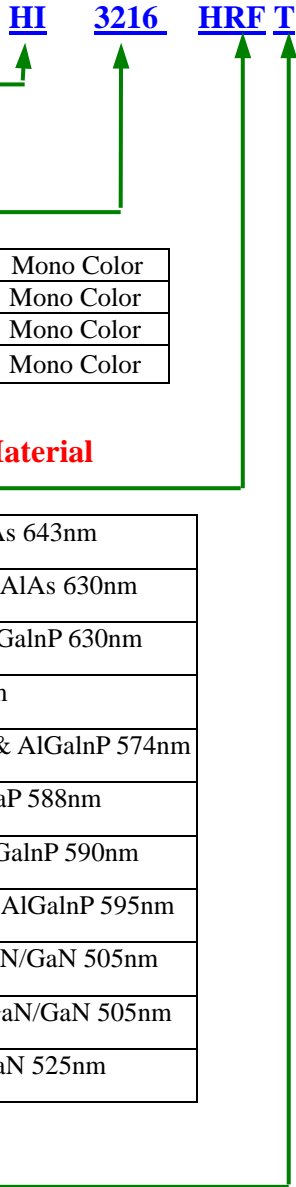
**SIZE CODE**

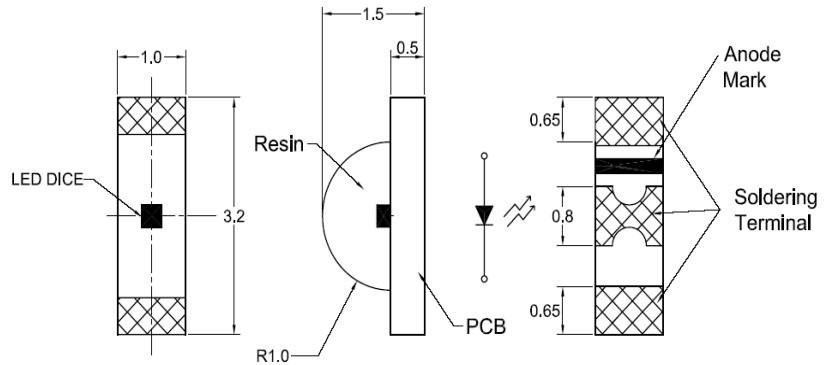
3216R	3.2X1.5X1.0	Mono Color
3216	3.2X1.6X1.1	Mono Color
2012	2.0X1.25X0.8	Mono Color
1608	1.6X0.8X0.4	Mono Color

**Dice Emitting Color & Material**

“SR”	Super Red & GaAlAs 643nm
“HR”	Hi-Super Red & GaAlAs 630nm
“GRF”	Hi-Super Red & AlGaInP 630nm
“G”	Green & Gap 573nm
“9UG”	Ultra Super Green & AlGaInP 574nm
“Y”	Yellow & GaAsP/GaP 588nm
“VY”	Super Yellow & AlGaInP 590nm
“HY”	Hi-Super Yellow & AlGaInP 595nm
“DBK”	Super Blue & InGaN/GaN 505nm
“DGL”	Super Green & InGaN/GaN 505nm
“DGM”	Super Blue & InGaN 525nm

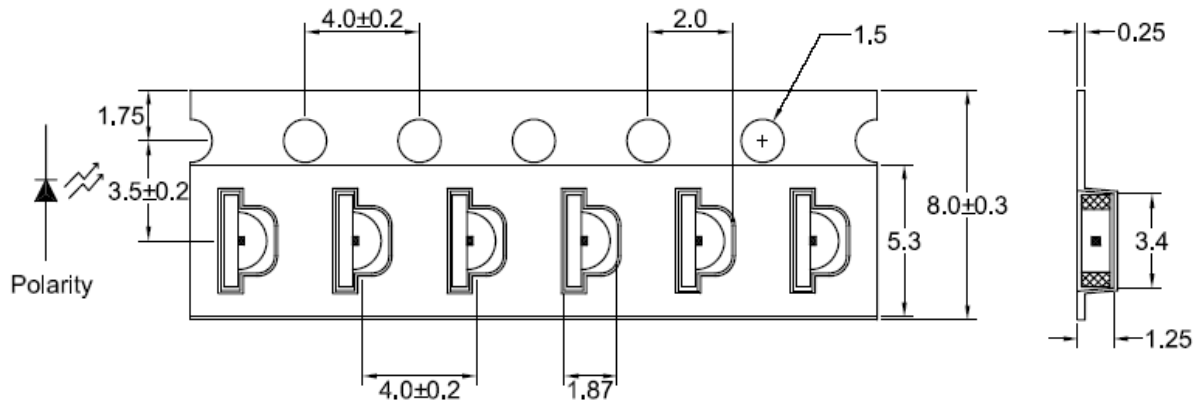
**T = Tape & Reel**

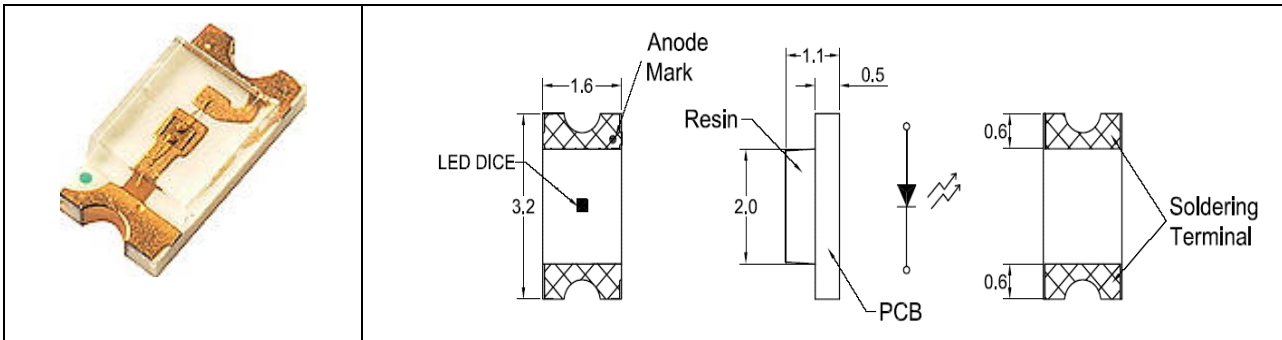




PART NO.	CHIP			Vf(V)@ 20mA		Iv(mcd) @ 20mA	Viewing angle
	Material	Emitted Color	$\lambda$ D(nm)	Typ.	Max.	Typ.	$2\theta$ 1/2
HI-3216R-SR-T	GaAlAs	Super Red	643	1.5	2.4	20	140
HI-3216R-HR-T	GaAlAs	Hi-Super Red	643	1.5	2.4	32	140
HI-3216R-HRF-T	AlGalnP	Hi-Super Red	630	1.5	2.4	60	130
HI-3216R-G-T	GaP	Green	573	1.7	2.6	10	140
HI-3216R-9UG-T	AlGalnP	Ultra super green	574	1.7	2.6	60	130
HI-3216R-Y-T	GaAsP/GaP	Yellow	588	1.7	2.6	8	150
HI-3216R-VY-T	AlGalnP	Super Yellow	590	1.7	2.6	60	130
HI-3216R-HY-T	AlGalnP	Hi-Super Yellow	595	1.7	2.6	100	140
HI-3216R-DBK-T	InGaN/GaN	Super Blue	470	3.5	4.0	50	140

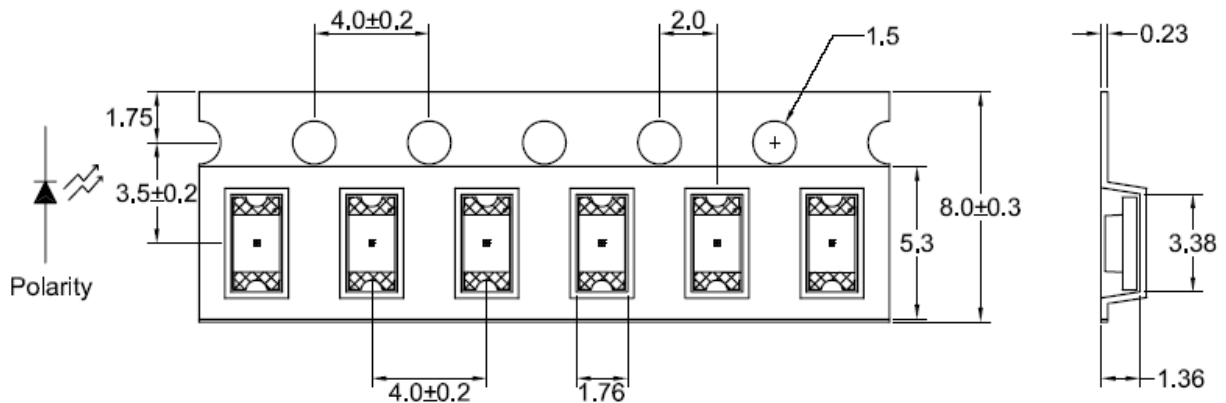
**Carrier Type Dimensions**

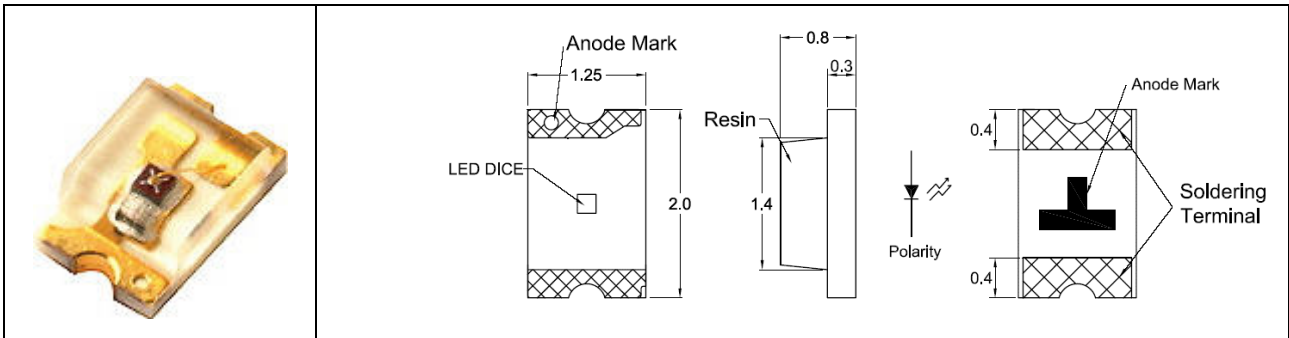




PAPT NO.	CHIP			Vf(V)@20mA		Iv(mcd) @20mA	Viewing Angle
	Material	Emitted Color	$\lambda$ D(nm)	Typ.	Max.	Typ.	$2\theta$ 1/2
HI-3216-SR-T	GaAlAs	Super Red	643	1.5	2.4	20	140
HI-3216-HR-T	GaAlAs	Hi-Super Red	643	1.5	2.4	32	140
HI-3216-HRF-T	AlGaInP	Hi-Super Red	630	1.5	2.4	60	130
HI-3216-G-T	GaP	Green	573	1.7	2.6	10	140
HI-3216-9UG-T	AlGaInP	Ultra super green	574	1.7	2.6	60	130
HI-3216-Y-T	GaAsP/GaP	Yellow	588	1.7	2.6	8	150
HI-3216-VY-T	AlGaInP	Super Yellow	590	1.7	2.6	60	130
HI-3216-HY-T	AlGaInP	Hi-Super Yellow	595	1.7	2.6	100	140
HI-3216-DBK-T	InGaN/GaN	Super Blue	470	3.5	4.0	50	140

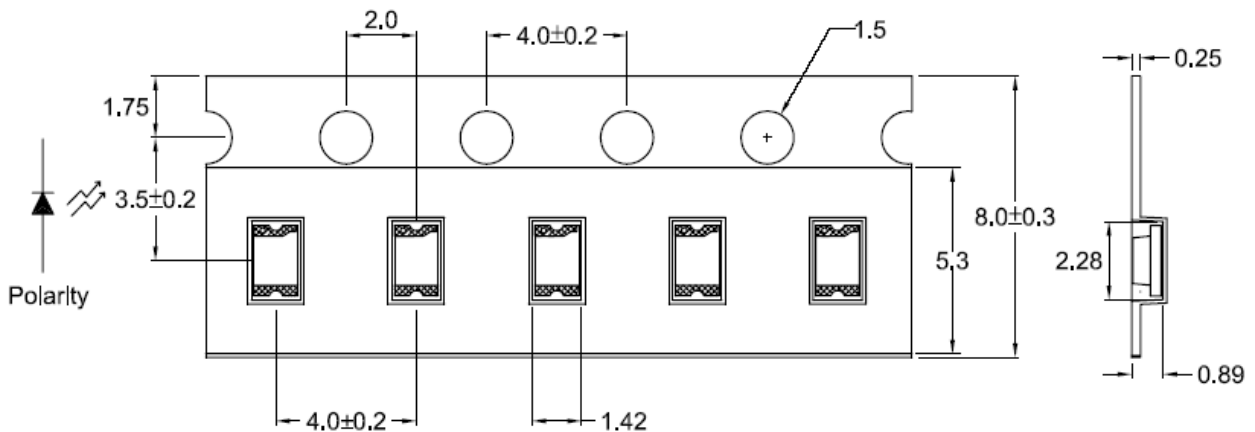
### Carrier Type Dimensions

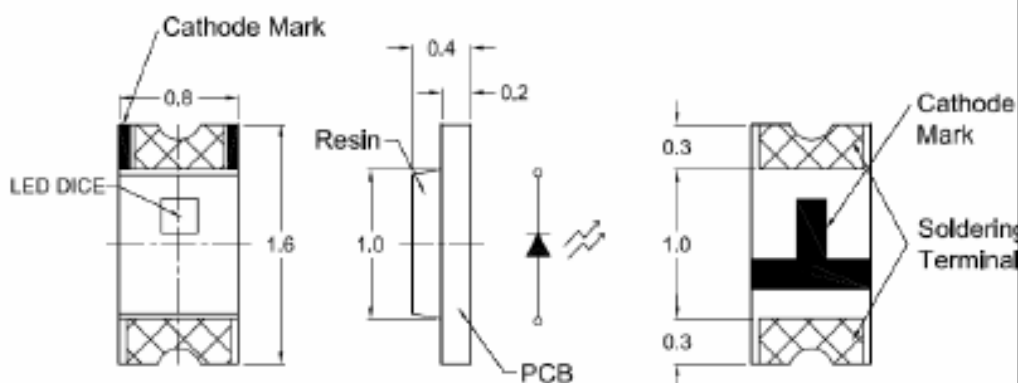




PART NO.	CHIP			Vf(V)@20mA		Iv(mcd)@ 20mA	Viewing angle
	Material	Emitted Color	$\lambda$ D(nm)	Typ.	Max.	Typ.	$2\theta$ 1/2
HI-2012-SR-T	GaAlAs	Super Red	643	1.5	2.4	20	140
HI-2012-HR-T	GaAlAs	Hi-Super Red	643	1.5	2.4	32	140
HI-2012-HRF-T	AlGaInP	Hi-Super Red	630	1.5	2.4	60	130
HI-2012-G-T	GaP	Green	573	1.7	2.6	10	140
HI-2012-9UG-T	AlGaInP	Ultra super green	574	1.7	2.6	60	130
HI-2012-Y-T	GaAsP/GaP	Yellow	588	1.7	2.6	8	150
HI-2012-VY-T	AlGaInP	Super Yellow	590	1.7	2.6	60	130
HI-2012-HY-T	AlGaInP	Hi-Super Yellow	595	1.7	2.6	100	140
HI-2012-DBK-T	InGaN/GaN	Super Blue	470	3.5	4.0	50	140

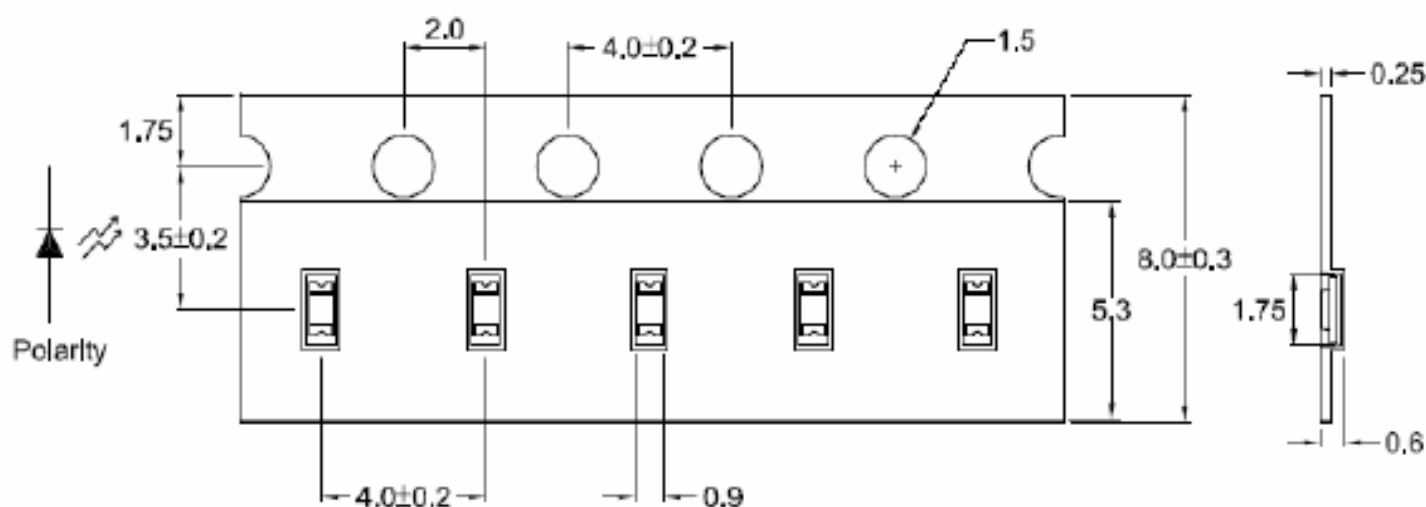
Carrier Type Dimensions





PART NO.	CHIP			Vf(V)@ 20mA		Iv(mcd) @ 20mA	Viewing angle
	Material	Emitted Color	$\lambda$ D(nm)	Typ.	Max.	Typ.	$2\theta$ 1/2
HI-1608-SRF-T	GaAlAs	Super Red	630	1.5	2.4	50	110
HI-1608-HRF-T	AlGaN	Hi-Super Red	630	1.5	2.4	80	110
HI-1608-9UG-T	AlGaN	Ultra super green	574	1.7	2.6	32	120
HI-1608-VY-T	AlGaN	Super Yellow	590	1.7	2.6	60	110
HI-1608-HY-T	AlGaN	Hi-Super Yellow	595	1.7	2.6	100	140
HI-1608-DBK-T	InGaN/GaN	Super Blue	470	3.5	4.0	50	120
HI-1608-DGL-T	InGaN/GaN	Super Green	505	3.5	4.2	80	140
HI-1608-DGM-T	InGaN	Super Green	525	3.5	4.0	100	140

### Carrier Type Dimensions



Test	Condition	Description	Reference Standard
Operating Life Test	<ul style="list-style-type: none"> <li>Under Room Temperature</li> <li>If=20mA</li> <li>t=1000hrs(-24hrs,72hrs)</li> </ul>	This test is conducted for the purpose of determining the Resistance of a part in electrical and thermal stressed.	MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021:B-1
High Temperature Storage Test	<ul style="list-style-type: none"> <li>Ta=105°C ± 0.5°C</li> <li>t=1000hrs(-24hrs,72hrs)</li> </ul>	The purpose of this test is the resistance of the device which Is laid under condition of high temperature for hours.	MIL-Std-883:1008 JIS C 7021:B-10
Low Temperature Storage Test	<ul style="list-style-type: none"> <li>Ta=-40°C±0.5°C</li> <li>t=1000hrs(-24hrs,72hrs)</li> </ul>	The purpose of this test is the resistance of the device which Is laid under condition of low temperature for hours.	JIS C 7021:B-12
High Temperature High Humidity Test	<ul style="list-style-type: none"> <li>Ta=65°C±0.5°C</li> <li>RH=90%~95%</li> <li>t=240hrs±2hrs</li> </ul>	The purpose of this test is the resistance of the device under tropical for hours.	MIL-STD-202:103B JIS C 7021:B-11
Thermal Shock Test	<ul style="list-style-type: none"> <li>105°C±0.5°C&amp;-40°C±0.5°C (10min)(10min)</li> <li>total 10 cycles</li> </ul>	The purpose of this test is the resistance of the device to Sudden extreme changes in high and low temperature.	MIL-STD-202:103B MIL-STD-750:1051 MIL-STD883:1011
Solder Resistance Test	<ul style="list-style-type: none"> <li>T. Sol=260°C±0.5°C</li> <li>Dwell solder 10±1sec</li> </ul>	This test is intended to determine the thermal characteristic Resistance of the device to sudden exposures at extreme Changes in temperature when soldering the lead wire.	MIL-STD-2025:210A MIL-STD-750:2031 JS C 7021:A-1
Solder ability Test	<ul style="list-style-type: none"> <li>T. Sol=230°C±0.5°C</li> <li>Dwell time=5±1sec.</li> </ul>	This test intended to see soldering well performed or not	MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003 JIS C 7021:A-2

- All specifications in this short form are subject to change without prior notice. Please contact us for updated data sheet.