

**CERAMIC SMD LVDS/LVPECL OUTPUT OSCILLATOR (5.0 x 3.2 x 1.3mm)**
**FEATURES:**

- LOW CURRENT
- ULTRA LOW <0.2ps RMS JITTER PERFORMANCE
- LOW COST

**APPLICATIONS:**

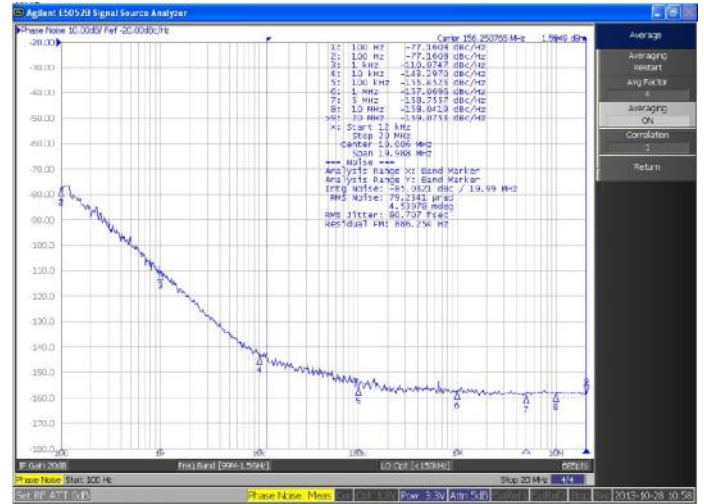
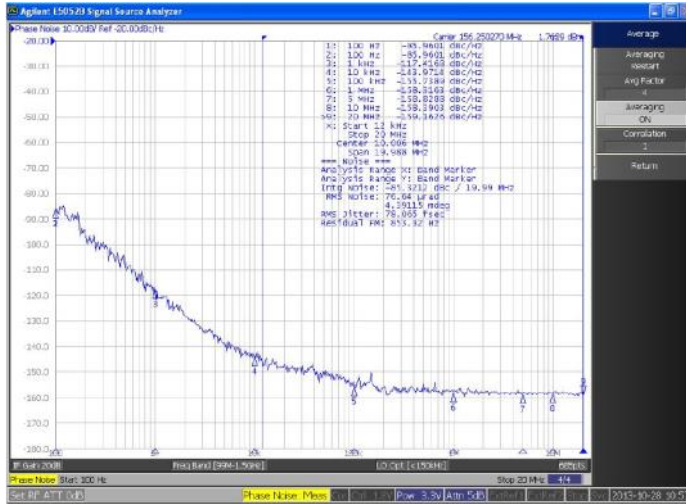
- 10GbE / 40GbE Ethernet Switches and Routers
- 100GbE Ethernet Switches and Routers
- Synchronous Ethernet


**■ SPECIFICATION**

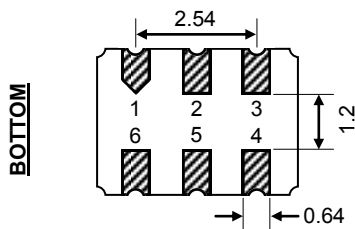
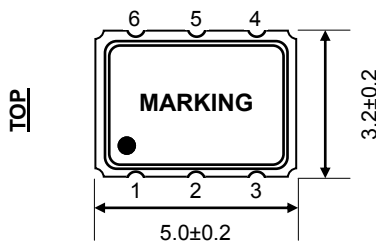
PARAMETER		MIN.	TYP.	MAX.	UNIT	NOTE	
FREQUENCY RANGE		25		200	MHz		
FREQUENCY STABILITY		±10*	±50	±100	ppm	* Selected operating temp. only	
OPERATING TEMPERATURE RANGE		-40		85	°C	See P/N guide for other options	
STORAGE TEMPERATURE RANGE		-55		125	°C		
SUPPLY VOLTAGE ±10%		V <sub>DD</sub> = 2.5V <sub>DC</sub>	2.375	2.500	2.625	V	See P/N guide for other options
		V <sub>DD</sub> = 3.3V <sub>DC</sub>	2.970	3.300	3.630	V	
SUPPLY CURRENT				80	mA	(V <sub>DD</sub> = 2.5V <sub>DC</sub> , 3.3V <sub>DC</sub> )	
OUTPUT	LOAD	LVDS		100	Ω	Output - Complimentary Output	
		LVPECL		50	Ω	into V <sub>DD</sub> - 2V <sub>DC</sub>	
	LEVEL	LVDS (V <sub>OH</sub> )		1.4	1.6	V	
		LVDS (V <sub>OL</sub> )	0.9	1.1		V	
		LVPECL (V <sub>OH</sub> )	V <sub>DD</sub> - 1.025V			V	
		LVPECL (V <sub>OL</sub> )			V <sub>DD</sub> - 1.62V	V	
	PEAK TO PEAK	LVPECL	600	800		mV	
	DIFFERENTIAL OUTPUT VOLTAGE	LVDS	0.247	0.350	0.454	V	
	OFFSET VOLTAGE	LVDS	1.125	1.25	1.375	V	
	SYMMETRY (DUTY CYCLE)		40		60	%	
	RISE AND FALL TIME (Tr/Tf)			250	1000	pS	@ 20% / 80%
	START-UP TIME			5	10	mS	
STAND-BY VOLTAGE		ENABLE (V <sub>IH</sub> )	0.7 x V <sub>DD</sub>			V <sub>DD</sub>	
		DISABLE (V <sub>IL</sub> )			0.3 x V <sub>DD</sub>	V <sub>DD</sub>	
ENABLE DELAY TIME				100	nS		
DISABLE DELAY TIME				100	nS		
AGING		per 1year			±3.0	ppm	@ 25°C ±3°C
		per 10years			±5.0	ppm	
PHASE JITTER RMS		LVDS			1.0	pS	@ 12kHz ~ 20MHz
		LVPECL			0.2	pS	@ 12kHz ~ 20MHz
					0.1	pS	@ 10kHz ~ 1MHz
JITTER pk-pk		LVPECL			35	pS	@ 100,000 random periods

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## ■ PHASE NOISE



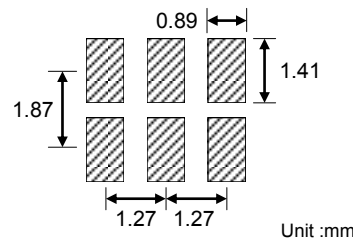
## ■ PACKAGE DIMENSIONS



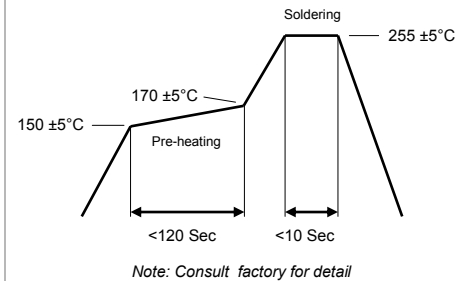
Unit : mm

Pin Configuration	
1	En/Dis or N.C.
2	N.C
3	GND
4	Output
5	C - output
6	V <sub>DD</sub>

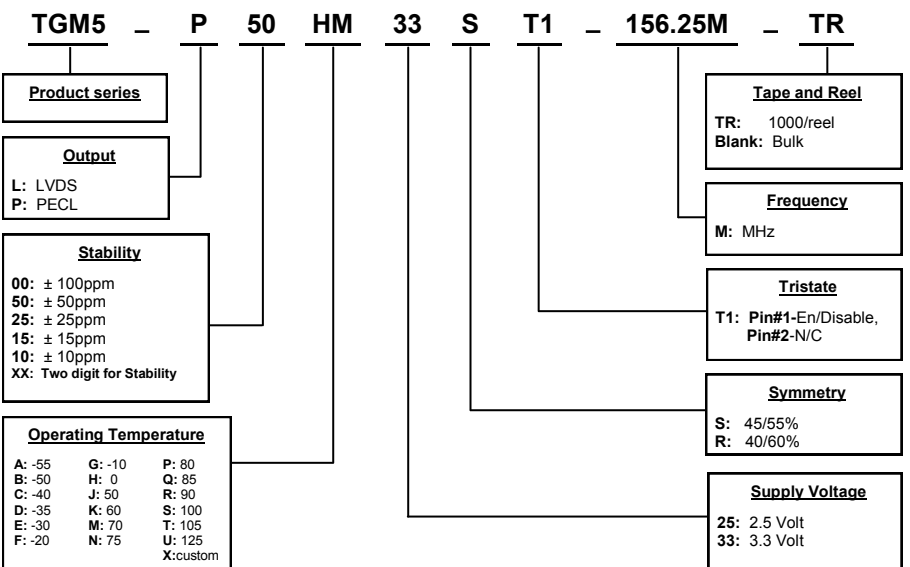
## ■ SOLDER PATTERN



## ■ REFLOW PROFILE



## ■ PART NUMBERING GUIDE



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