

Table 1. Integrated Hall BLDC Motor Driver Quick Selector

Parameters	Vibro-driver	Single-coil		Two-coil					
	MLX90283	US72/73	US168/169	US79	US62/63	US90A/91A	US890/891	US65/66	US651/661
$B_{OP}, B_{RP} \max^{(1)}$ [mT]	5	6	5	6	6	6	6	6	6
Temperature Range ⁽²⁾	E	E	E	K	E	E	E	E	E
V_{DD} range [V]	1.8~3.6	4.5~28	1.8~6.5	3.5~18	3.2~18	4.7~30	2.6~18	3~18	3~18
I_{OUT} peak max [mA]	250	500	500	500	400	500	1200	1200	700
I_{OUT} continuous max [mA]	150	350	300	350	250	250	600	600	350
Soft Switching (Low Noise) ⁽³⁾	-	-	INT	-	-	-	-	INT & EXT	INT & EXT
Locked Rotor Protection	Active Start	✓	✓	✓	✓	✓	Enhanced	Enhanced	Enhanced
Reverse Voltage Protection ⁽⁴⁾	✓	-	✓	•	•	•	•	✓	✓
Thermal Protection	✓	-	✓	-	-	-	-	✓	✓
3 rd wire ⁽⁵⁾	-	FG / RD	FG / RD	-	FG / RD	FG / RD	FG / RD	FG / RD	FG / RD
FG/RD Driver Protection ^{(5) (6)}	-	-	CL	-	CL	-	CL	CL	CL
One-chip solution (sensor + drivers)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Package	UTQFN-6L (LD)	SOIC-8L (DC)	TSOT-5L (SE) UTQFN-6L (LD)	TO92-3L flat (UA)	SIP-4L (VK)	SOIC-8L (DC) SIP-4L (VK) SIP-4L flat	SIP-4L (VK)	SOIC-8L (DC) SIP-5L (VM) ⁽⁷⁾	SOIC-8L (DC) SIP-5L (VM) ⁽⁷⁾
RoHS Compliant	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note 1 1 mT = 10 Gauss

Note 2 Temperature ranges: E (-40/85°C), K (-40/125°C), L (-40/150°C)

Note 3 INT – Internal, EXT – External (Adjustable by dedicated pin)

Note 4 • - "No V_{DD} " design allows non-destructive reverse voltage condition using the coil resistance to limit the reverse current

Note 5 FG – Frequency Generation (Tachometer), RD – Rotation Detection (Alarm)

Note 6 CL – Current Limit

Note 7 In development, contact Melexis for further information

For more detailed information concerning the device performance, please refer to the latest datasheet revision available on our website or contact our sales force.

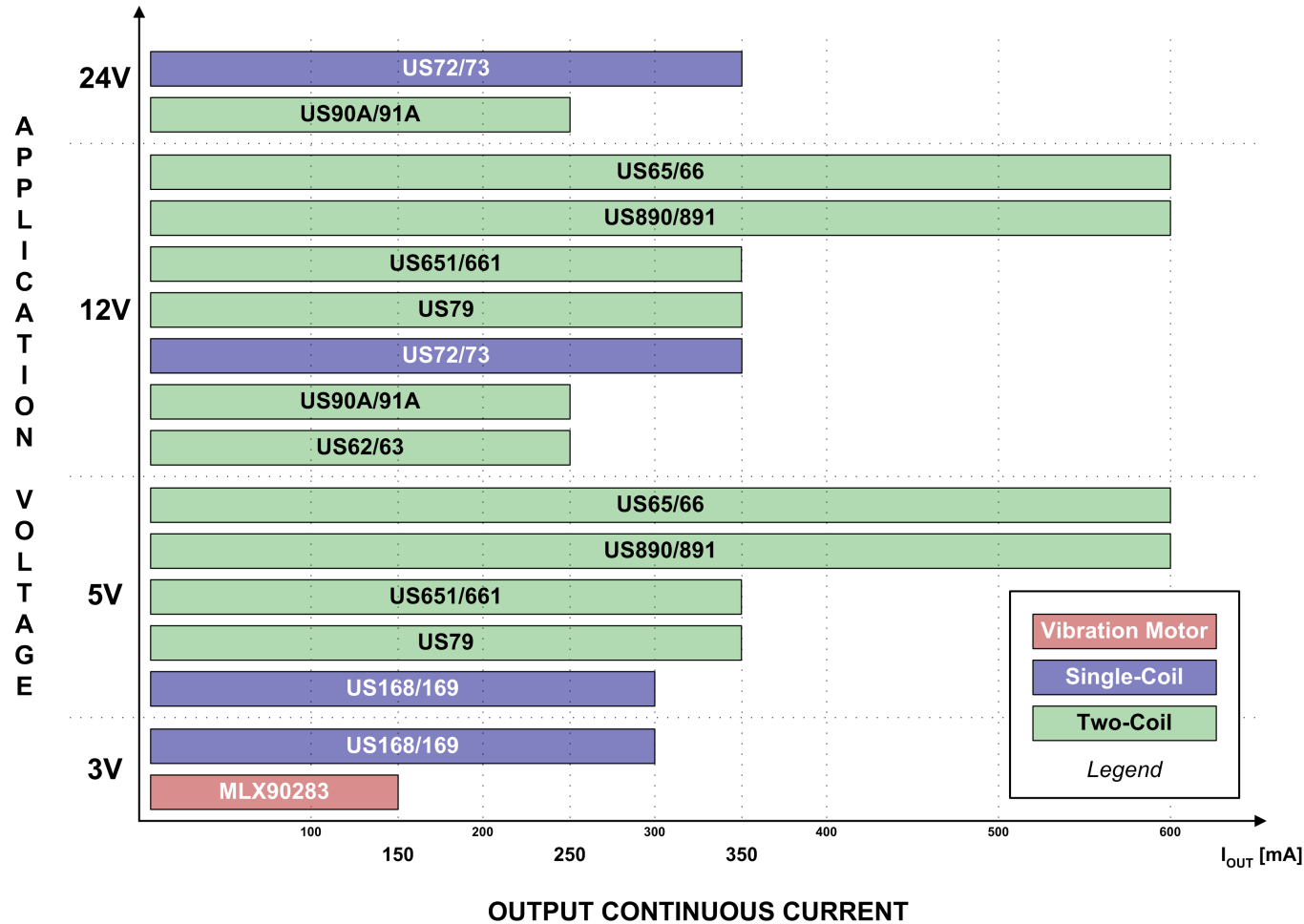
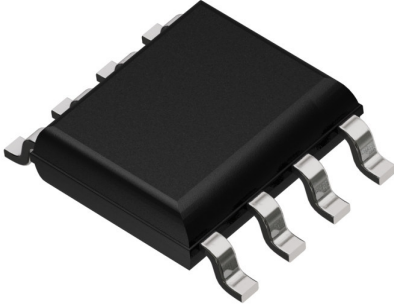
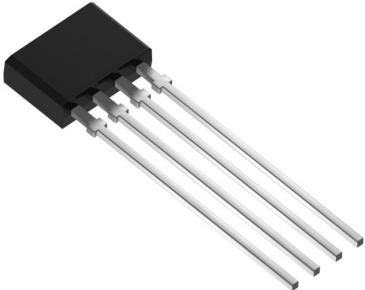
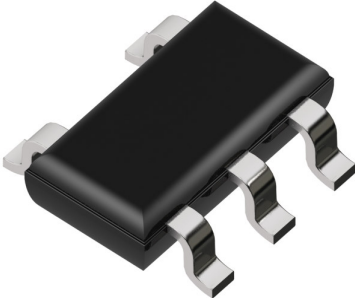


Figure 1. Integrated Hall BLDC Motor Driver Graph Selector by Application Voltage and Output Continuous Current

Table 1. Package pictures

Through-Hole Packages	Surface-Mount Packages	Chip-Size Package
 <p>TO92-3L flat (UA)</p>	 <p>SOIC-8L (DC)</p>	 <p>UTQFN-6L (LD)</p>
 <p>SIP-4L (VK)</p>	 <p>TSOT-5L (SE)</p>	

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