

Hall Effect Current Sensors S26P200D15Y



Features:

- Closed Loop type
- Current or voltage output
- Conversion ratio $K_N = 1:2000$
- Printed circuit board mounting
- Aperture
- Insulated plastic case according to UL94V0
- UL Recognition

Advantages:

- Excellent accuracy and linearity
- Low temperature drift
- Wide frequency bandwidth
- No insertion loss
- High Immunity to external interferences
- Optimised response time
- Current overload capability

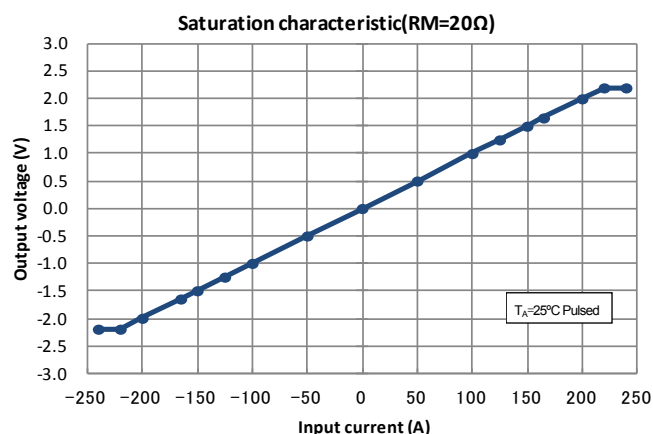
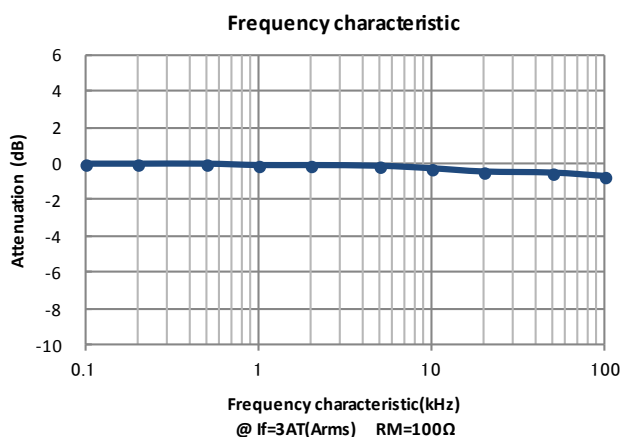
 $T_A = 25^\circ\text{C}, V_{CC} = \pm 15\text{V}$

Specifications

Parameters	Symbol	S26P200D15Y	
Primary nominal current	I_f	200A	300A
Maximum current ¹ (at 85°C)	I_{fmax}	$\pm 350\text{A}$ (at $R_M \leq 5\Omega$)	
Measuring resistance (at 85°C)	R_M	0Ω ~ 26Ω (at $V_{CC} = \pm 12\text{V}$) 0Ω ~ 56Ω (at $V_{CC} = \pm 15\text{V}$)	0Ω ~ 4Ω (at $V_{CC} = \pm 12\text{V}$) ² 0Ω ~ 8Ω (at $V_{CC} = \pm 15\text{V}$)
Conversion Ratio	K_N	1 : 2000	
Rated output current	I_O	100mA	150mA
Output current accuracy ³ (at I_f)	X	$I_O \pm 0.4\%$	
Offset current ⁴ (at $I_f=0\text{A}$)	I_{of}	$\leq \pm 0.2\text{mA}$	
Output linearity ³ (0A ~ I_f)	ϵ_L	$\leq \pm 0.15\%$ (at I_f)	
Power supply voltage ¹	V_{CC}	$\pm 12\text{V} \dots \pm 15\text{V} \pm 5\%$	
Consumption current	I_{CC}	$\leq \pm 16\text{mA}$ (Output current is not included)	
Response time ⁵	t_r	$\leq 1.0\mu\text{s}$ (at $di/dt = 100\text{A} / \mu\text{s}$)	
Thermal drift of gain ⁶	T_{clo}	$\leq \pm 0.01\% / ^\circ\text{C}$	
Thermal drift of offset current	T_{clof}	$\leq \pm 0.5\text{mA max}$ (at $T_A = -40^\circ\text{C} \leftrightarrow +85^\circ\text{C}$)	
Hysteresis error	I_{OH}	$\leq 0.3\text{mA}$ (@ $I_f=0\text{A} \rightarrow I_f \rightarrow I_f=0\text{A}$)	
Insulation voltage	V_d	AC 3000V, for 1minute (sensing current 0.5mA), inside of through hole $\leftrightarrow$ terminal	
Insulation resistance	R_{IS}	$\geq 500\text{M}\Omega$ (@ DC 500V), inside of through hole $\leftrightarrow$ terminal	
Secondary coil resistance	R_S	60Ω (at $T_A = 70^\circ\text{C}$), 65Ω (at $T_A = 85^\circ\text{C}$)	
Ambient operation temperature	T_A	$-40^\circ\text{C} \sim +85^\circ\text{C}$	
Ambient storage temperature	T_S	$-40^\circ\text{C} \sim +90^\circ\text{C}$	

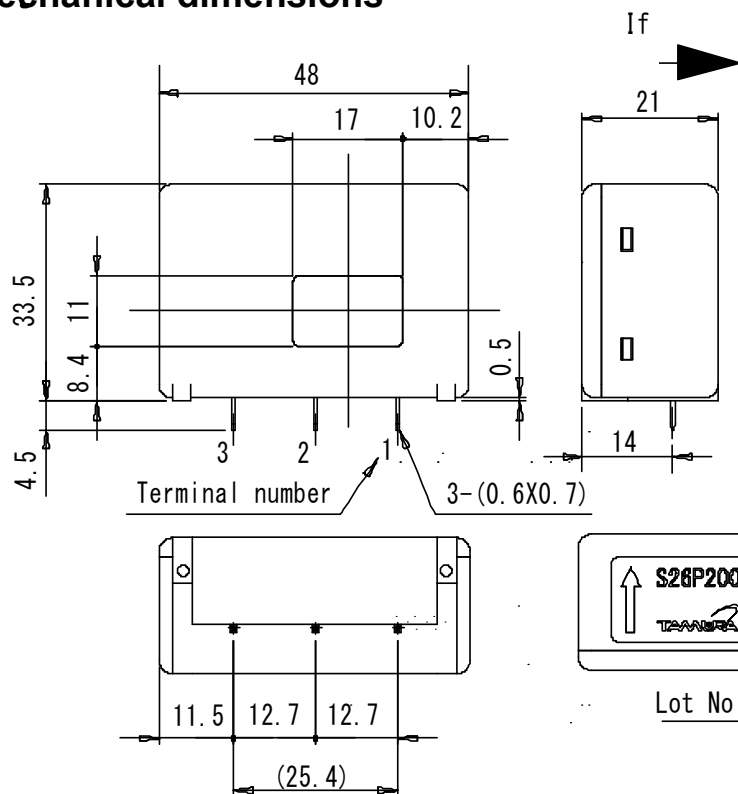
¹ Maximum current is restricted by V_{CC} — ² $I_f = 250\text{A}$ — ³ Without offset current — ⁴ After removal of core hysteresis — ⁵ Time between 90% input current full scale and 90% of sensor output full scale — ⁶ Without Thermal drift of offset current

Electrical Performances



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Mechanical dimensions



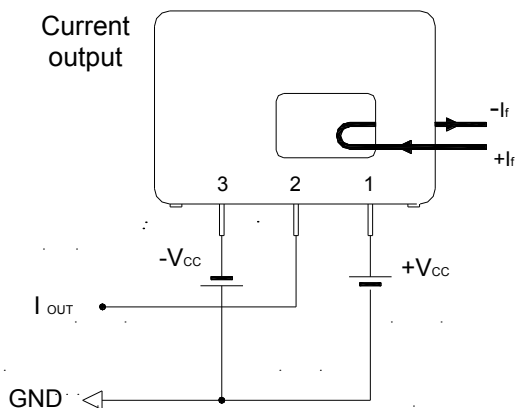
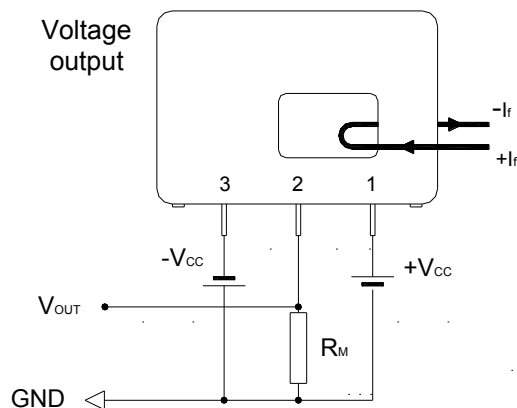
NOTES

1. Unit is mm
2. Tolerance is 0.5mm

Terminal number:

1. +Vcc(+15V)
2. I_{OUT}
3. -Vcc(-15V)

Electrical connection diagram



S26P200D15Y
At $I_f = 200A$ & $V_{CC} = \pm 15V_{DC}$
 $0\Omega \leq R_M \leq 56\Omega$

UL Standard

UL 508 , CSA C22.2 No.14 (UL FILE No.E243511)

- For use in Pollution Degree 2 Environment.
- Maximum Surrounding air temperature rating, 85°C.

CAUTION

Do not wrap the primary conductor around the core part of the product to increase measured current.

Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
45g	50	200	5400

Mouser Electronics

Authorized Distributor

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Tamura:

S26P200D15Y