

Rev.A Aug.-2022

SOT-89

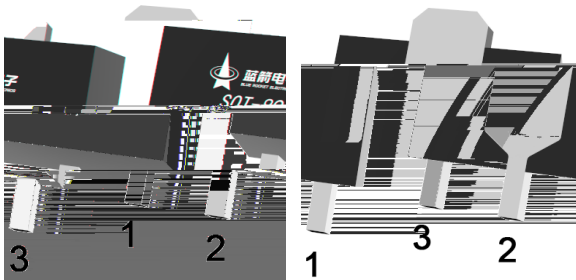
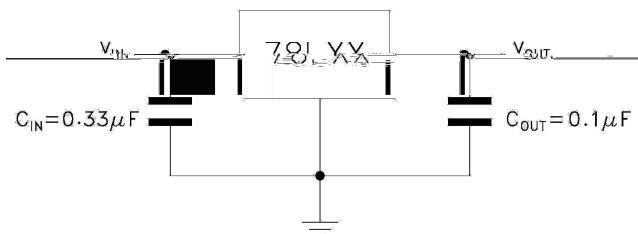
Voltage Regulator in a SOT-89 Plastic Package.

100mA,

AEC-Q100

3-Terminal regulators ,output current up to 100 mA, internal thermal overload protection and short-circuit limiting,Qualified to AEC-Q100 Standards for High Reliability, HF Product.

Voltage Regulator, Meet the stringent requirements of automotive applications.



PIN1 OUT PIN 2 GND PIN 3 IN

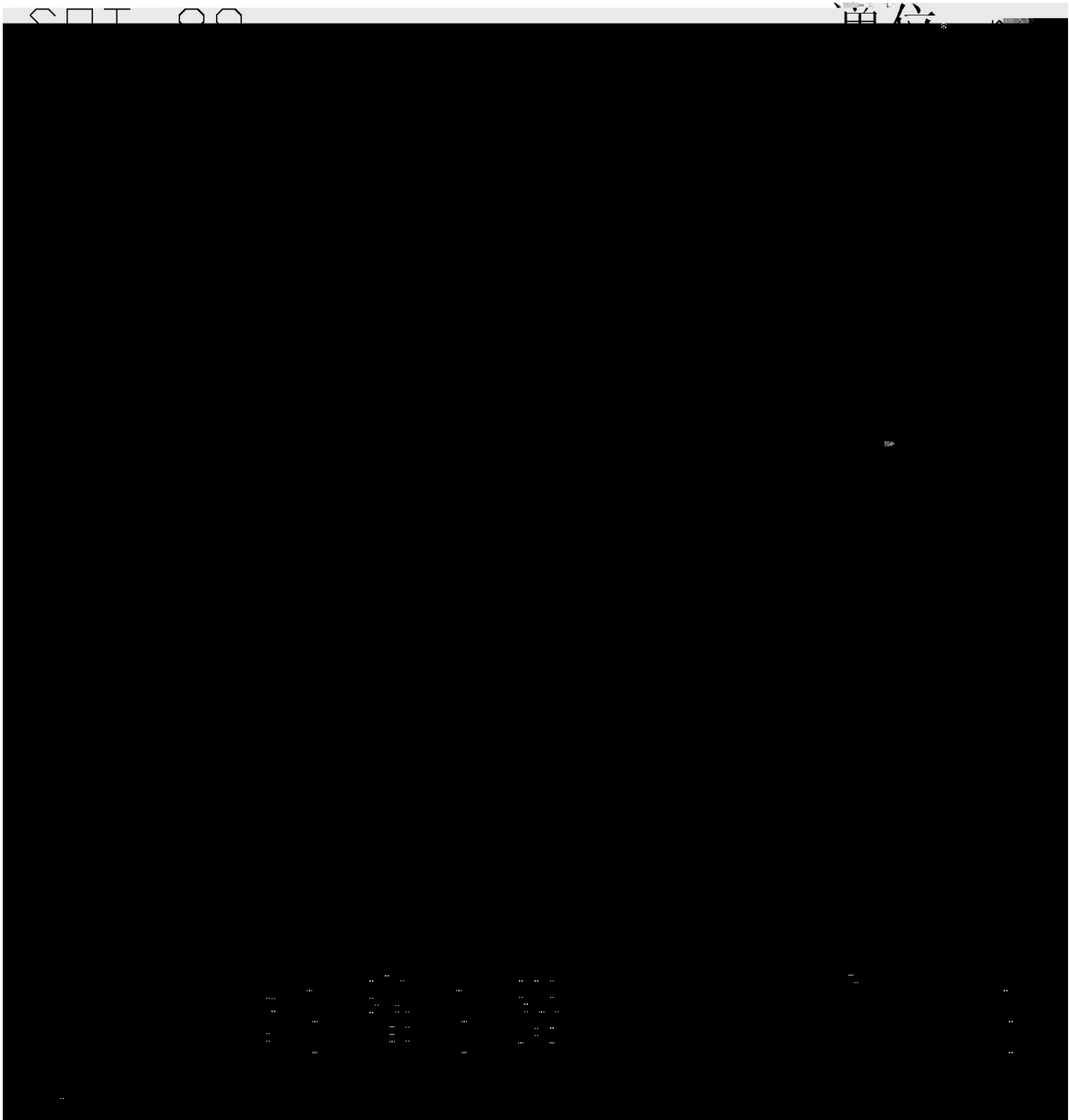
Marking

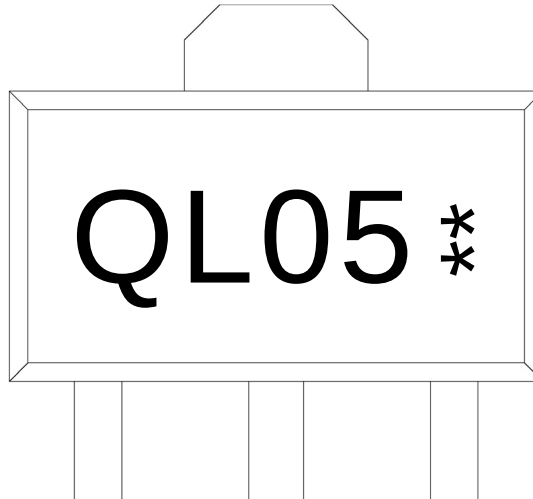
QL05 *

Parameter	Symbol	Rating	Unit
Input voltage	V_I	30	V
Output current	I_O	100	mA
Operating virtual Junction temperature	T_J	0 125	
Power Dissipation	P_D	500	mW
Storage temperature range	T_{stg}	-65 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_O	$I_O = 40mA$ $T_J = 25$	4.80	5.0	5.2	V
		$I_O = 1mA$ to 40mA $V_I = 7V$ to 20V	4.75	5.0	5.25	V
		$I_O = 1mA$ to 70mA $V_I = 10V$	4.75	5.0	5.25	V
Input regulation	V_O	$V_I = 7V$ to 20V $T_J = 25$		32	150	mV
		$V_I = 8V$ to 20V $T_J = 25$		26	100	mV
Output regulation	V_O	$I_O = 1mA$ to 100mA $T_J = 25$		15	60	mV
		$I_O = 1mA$ to 40 mA $T_J = 25$		8	30	mV
Ripple rejection	RR	$V_I = 8V$ to 18V $f = 120Hz$ $T_J = 25$	41	49		dB
Output noise voltage	V_N	$f = 10Hz \sim 100KHz$ $T_J = 25$		42		μV
Dropout voltage	V_D	$T_J = 25$		1.7		V
Bias current	I_Q	$T_J = 25$		3.8	6	mA
		$T_J = 125$			5.5	mA
Bias current change	I_Q	$V_I = 8V$ to 20V			1.5	mA
		$I_O = 1mA$ to 40mA			0.1	mA

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Q

L05

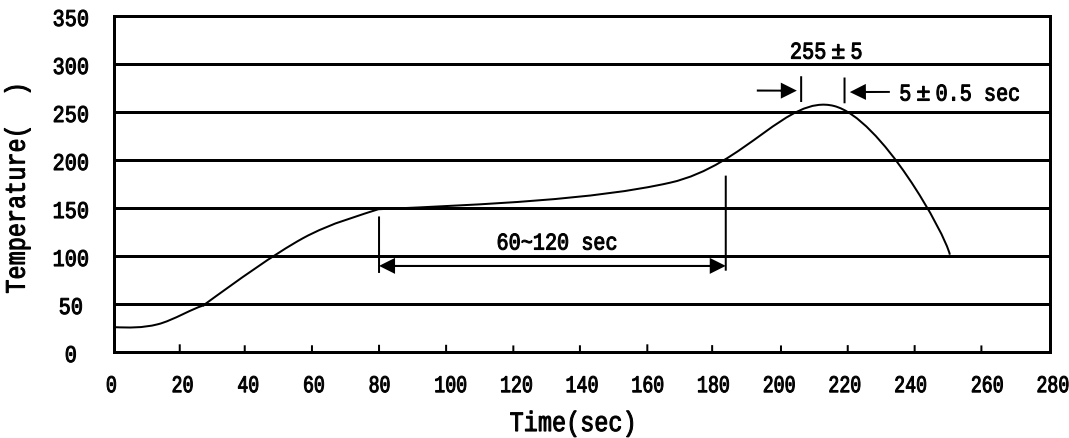
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Note:

Q: Automobile halogen-free product Code

L05: Product Type Code

**: Lot No. Code, code change with Lot No



Note:

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|---|-------|-----|----|-----------|---|
| 1 | 150 | 200 | 60 | 120sec; | 1.Preheating:150~200 , Time:60~120sec. |
| 2 | 255±5 | | | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

260±5	10±1 sec.	Temp:260±5	Time:10±1 sec
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/ REEL

Package Type	Units					Dimension			(unit mm ³)
SOT-89						7	×12	180×120×180	390×385×205