

/ Descriptions

TO-252 Voltage Regulator in a TO-252 Plastic Package.

/ Features

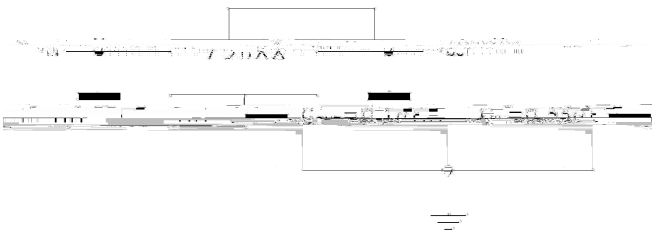
1.0A, AEC-Q100

3-Terminal regulators ,output current up to 1.0A, internal thermal overload protection and short-circuit limiting, Qualified to AEC-Q100 Standards for High Reliability, HF Product.

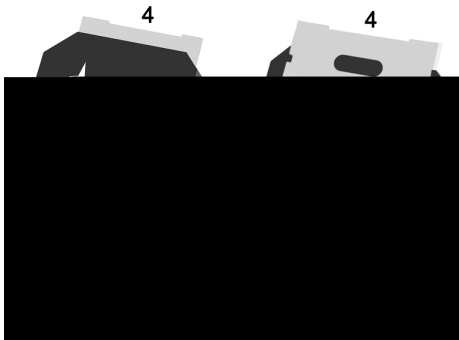
/ Applications

Voltage Regulator, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 GND PIN 2 4 IN PIN 3 OUT

/ Marking

See Marking Instructions.

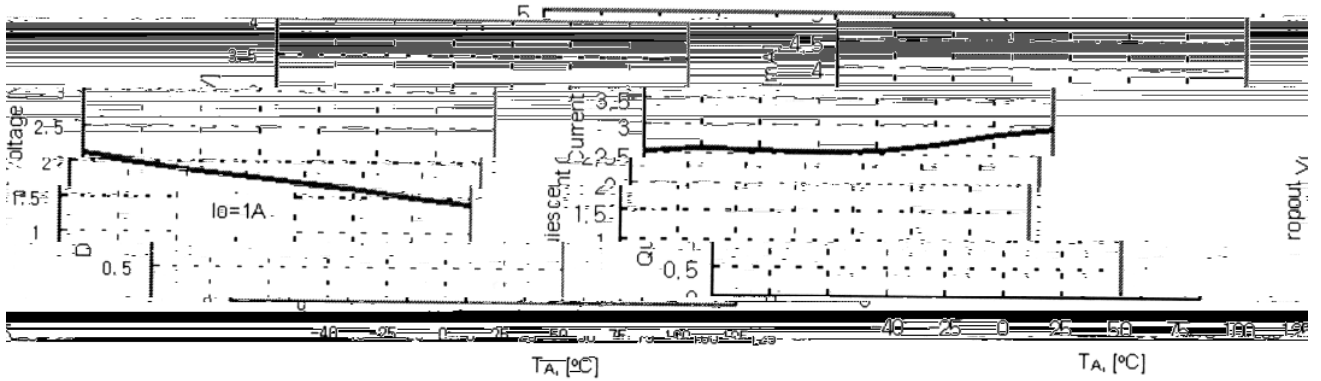
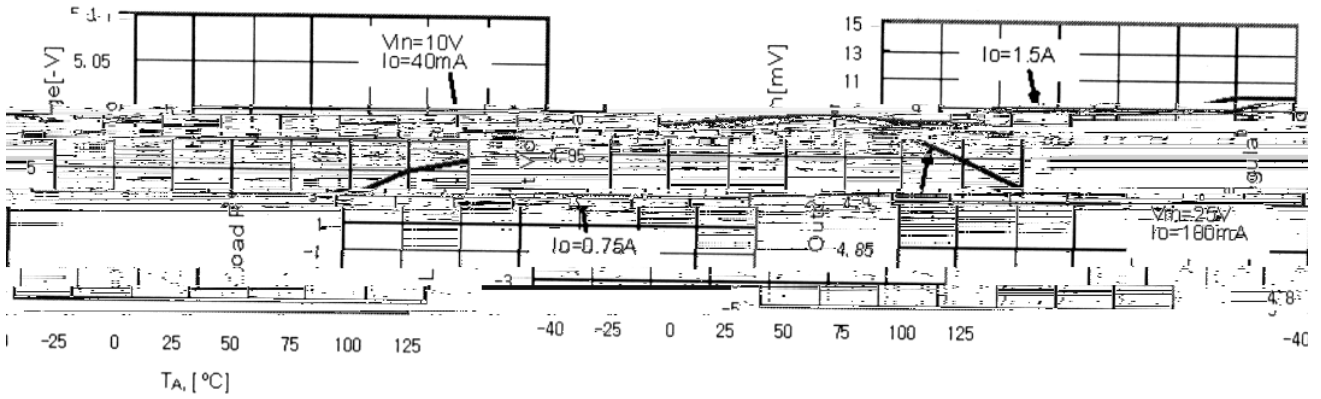
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input Voltage Difference	V _I	-35	V
Junction-to-Ambient	R _{JA}	65	/W
Junction-to-Case	R _{JC}	5	/W
Operating Temperature Range	T _{OPR}	-40 125	
Storage temperature range	T _{stg}	-65 +150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Line regulation	V _o	T _j =25	-4.8	-5.0	-5.2	V
		V _i =8 to 20V, I _o =-5mA to -1A,P _o 15W	-4.75	-5.0	-5.25	
Load Regulation	V _o	T _j =25 I _o =5mA to 1.5A			100	mV
		T _j =25 I _o =250mA to 750mA			50	
Load Regulation	V _o	T _j =25 V _i =-7V to -25V			100	mV
		T _j =25 V _i =-8V to -12V			50	
Bias current	I _d	T _j =25			8.0	mA
Bias current change	I _d	V _i =-8V to -25V			0.8	mA
		I _o =5mA to 1A			0.5	mA
Ratio of Change in VREF to Cathode Voltage	V _o / T	I _o =5mA		-0.4		mV/
RMS Noise vs. %of VOUT	eN	B=10Hz to 100KHz T _j =25		100		μV
Ripple Rejection	SVR	V _i =10V f=120Hz	54	60		dB
Dropout voltage	V _d	I _o =1A T _j =25 V _o =100mV		1.4		V
Short Circuit Current Limit	I _{sc}			2.1		A

/ Electrical Characteristic Curve



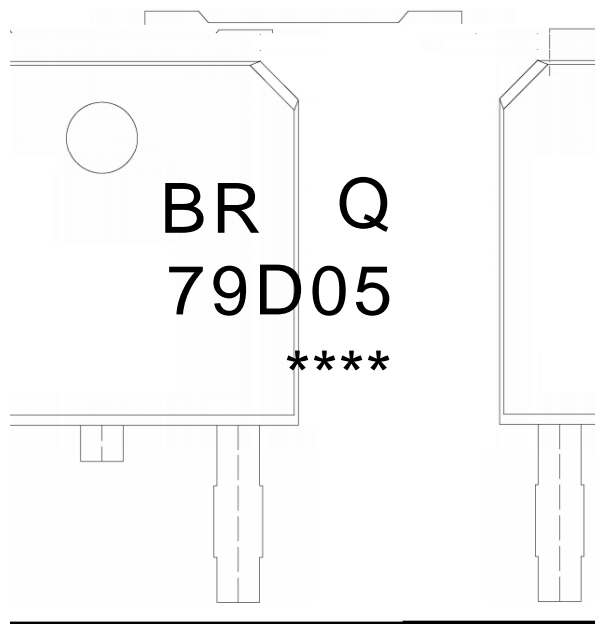
BR79D05Q
Rev.B Sep.-2024



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Marking Instructions



BR

Q

79D05

Note:

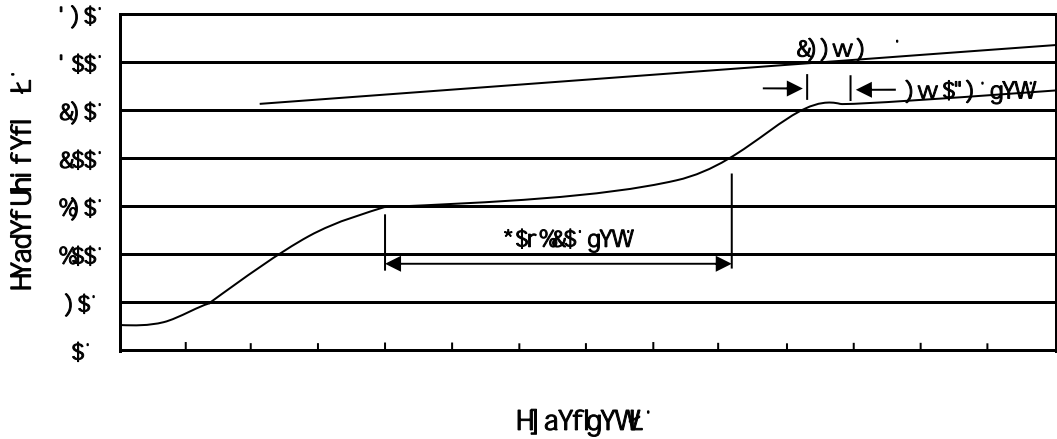
BR: Company Code

Q: Automobile halogen-free product Code

79D05: Product Type

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 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.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension	Dimension (unit mm ³)	
	2,500	2	5,000	6	30,000		13 ×16	360×360×50
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices