

/ 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.

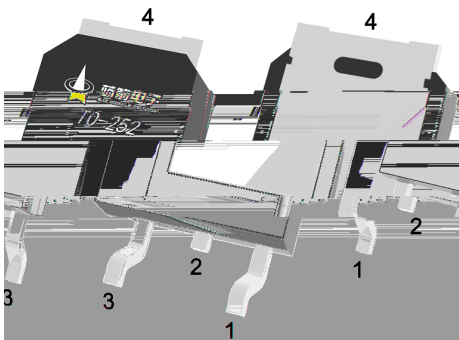
/ Applications

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.

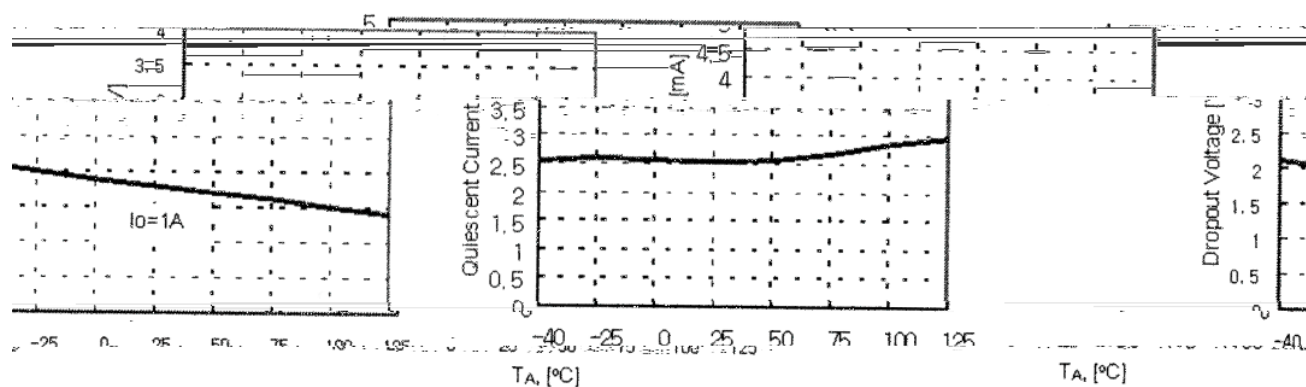
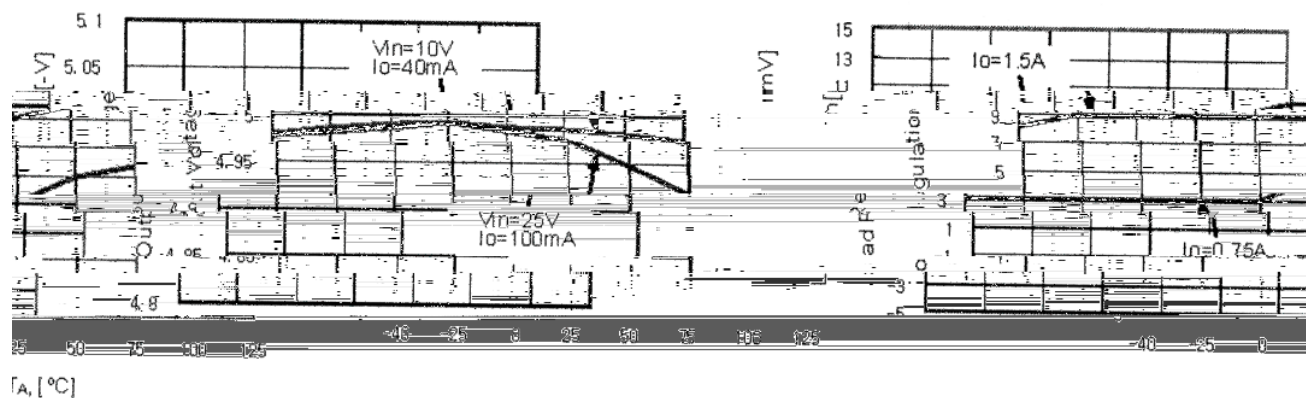
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input Voltage Difference	V_I	-35	V
Junction-to-Ambient	$R_{\theta JA}$	65	/W
Junction-to-Case	$R_{\theta JC}$	5	/W
Operating Temperature Range	T_{OPR}	-40 125	
Storage temperature range	T_{stg}	-65 +150	

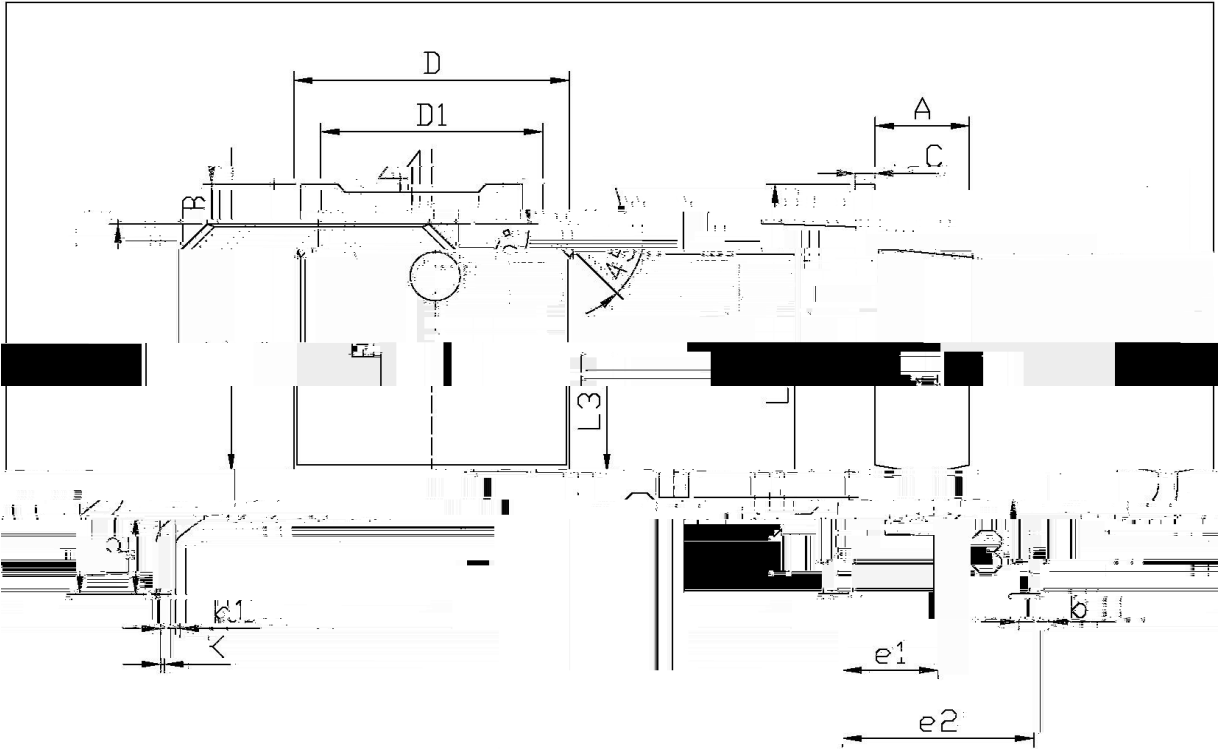
/ Electrical Characteristics(Ta=25)

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, $P_o \leq 15W$	-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	Isc			2.1		A

/ Electrical Characteristic Curve



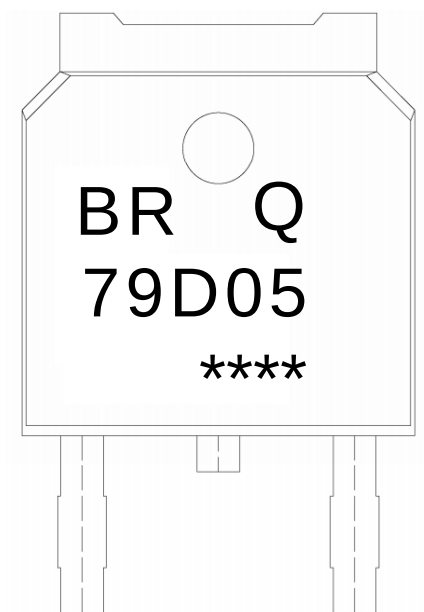
/ Package Dimensions



单位: mm

Symbol		Dimensions In Millimeters		Symbol		Dimensions In Millimeters	
		Min	Max			Min	Max
A	6.25		2.20	F	5.95		
B	2.34		0.95	G	2		
C	1.32		0.50	H	9		
D	10.35		0.45	I	1.70		
E	15		1.2	J	6.45		
K	0.50		0.55	L	6.75		
K1	0.50		0.50	M	5.50		
K2	0.50		0.50	N	5.50		
K3	0.50		0.50	O	5.50		
K4	0.50		0.50	P	5.50		
K5	0.50		0.50	Q	5.50		
K6	0.50		0.50	R	5.50		
K7	0.50		0.50	S	5.50		
K8	0.50		0.50	T	5.50		
K9	0.50		0.50	U	5.50		
K10	0.50		0.50	V	5.50		
K11	0.50		0.50	W	5.50		
K12	0.50		0.50	X	5.50		
K13	0.50		0.50	Y	5.50		
K14	0.50		0.50	Z	5.50		
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K16	0.50		0.50	AB	5.50		
K17	0.50		0.50	AC	5.50		
K18	0.50		0.50	AD	5.50		
K19	0.50		0.50	AE	5.50		
K20	0.50		0.50	AF	5.50		
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K22	0.50		0.50	AH	5.50		
K23	0.50		0.50	AI	5.50		
K24	0.50		0.50	AJ	5.50		
K25	0.50		0.50	AK	5.50		
K26	0.50		0.50	AL	5.50		
K27	0.50		0.50	AM	5.50		
K28	0.50		0.50	AN	5.50		
K29	0.50		0.50	AO	5.50		
K30	0.50		0.50	AP	5.50		
K31	0.50		0.50	AQ	5.50		
K32	0.50		0.50	AR	5.50		
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K35	0.50		0.50	AU	5.50		
K36	0.50		0.50	AV	5.50		
K37	0.50		0.50	AW	5.50		
K38	0.50		0.50	AX	5.50		
K39	0.50		0.50	AY	5.50		
K40	0.50		0.50	AZ	5.50		
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K45	0.50		0.50	BE	5.50		
K46	0.50		0.50	BF	5.50		
K47	0.50		0.50	BG	5.50		
K48	0.50		0.50	BH	5.50		
K49	0.50		0.50	BI	5.50		
K50	0.50		0.50	BJ	5.50		
K51	0.50		0.50	BK	5.50		
K52	0.50		0.50	BL	5.50		
K53	0.50		0.50	BM	5.50		
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K56	0.50		0.50	BP	5.50		
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K63	0.50		0.50	BW	5.50		
K64	0.50		0.50	BX	5.50		
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K119	0.50		0.50	EA	5.50		
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K122	0.50		0.50	ED	5.50		
K123	0.50		0.50	EE	5.50		
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K147	0.50		0.50	FC	5.50		
K148	0.50		0.50	FD	5.50		
K149	0.50		0.50	FE	5.50		
K150	0.50		0.50	FF	5.50		
K151	0.50		0.50	FG	5.50		
K152	0.50		0.50	FH	5.50		
K153	0.50		0.50	FI	5.50		
K154	0.50		0.50	FJ	5.50		
K155	0.50		0.50	FK	5.50		
K156	0.50		0.50	FL	5.50		
K157	0.50		0.50	FM	5.50		
K158	0.50		0.50	FN	5.50		
K159	0.50		0.50	FO	5.50		
K160	0.50		0.50	FP	5.50		
K161	0.50		0.50	FQ	5.50		
K162	0.50		0.50	FR	5.50		
K163	0.50		0.50	FS	5.50		
K164	0.50		0.50	FT	5.50		
K165	0.50		0.50	FU	5.50		
K166	0.50		0.50	FV	5.50		
K167	0.50		0.50	FW	5.50		
K168	0.50		0.50	FX	5.50		
K169	0.50		0.50	FY	5.50		
K170	0.50		0.50	FZ	5.50		
K171	0.50		0.50	GA	5.50		
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K173	0.50		0.50	GC	5.50		
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K177	0.50		0.50	GG	5.50		
K178	0.50		0.50	GH	5.50		
K179	0.50		0.50	GI	5.50		
K180	0.50		0.50	GJ	5.50		
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K182	0.50		0.50	GL	5.50		
K183	0.50		0.50	GM	5.50		
K184	0.50		0.50	GN	5.50		
K185	0.50		0.50	GO	5.50		
K186	0.50		0.50	GP	5.50		
K187	0.50		0.50	GQ	5.50		
K188	0.50		0.50	GR	5.50		
K189	0.50		0.50	GS	5.50		
K190	0.50		0.50	GT	5.50		
K191	0.50		0.50	GU	5.50		
K192	0.50		0.50	GV	5.50		
K193	0.50		0.50	GW	5.50		
K194	0.50		0.50	GX	5.50		
K195	0.50						

/ Marking Instructions



BR

Q

79D05

Note:

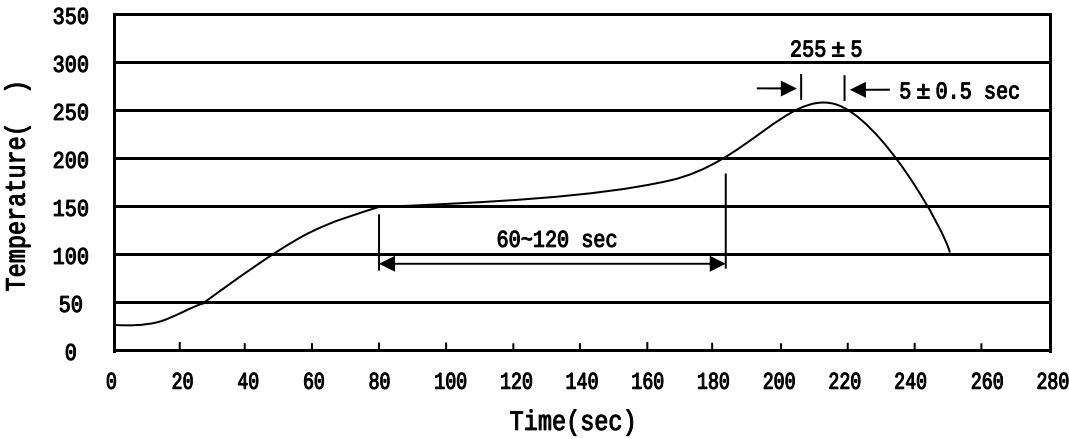
BR: Company Code

Q: Automobile halogen-free product Code

79D05: Product Type

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

() /



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

/ Notices