

/ Descriptions

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

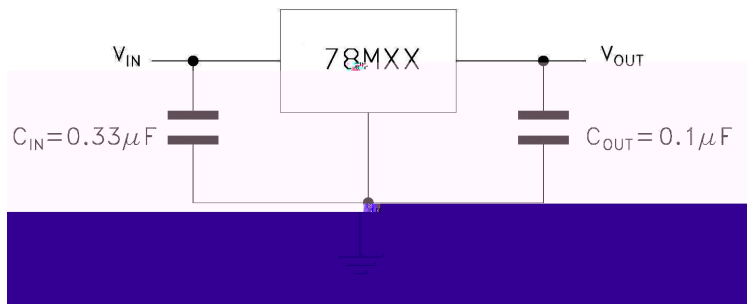
/ Features

0.5A,
3-Terminal regulators ,output current up to 0.5A, internal thermal overload protection and short-circuit limiting.

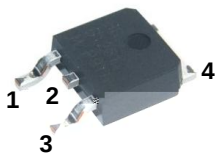
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 4 GND PIN 3 OUT

/ Marking

See Marking Instructions.

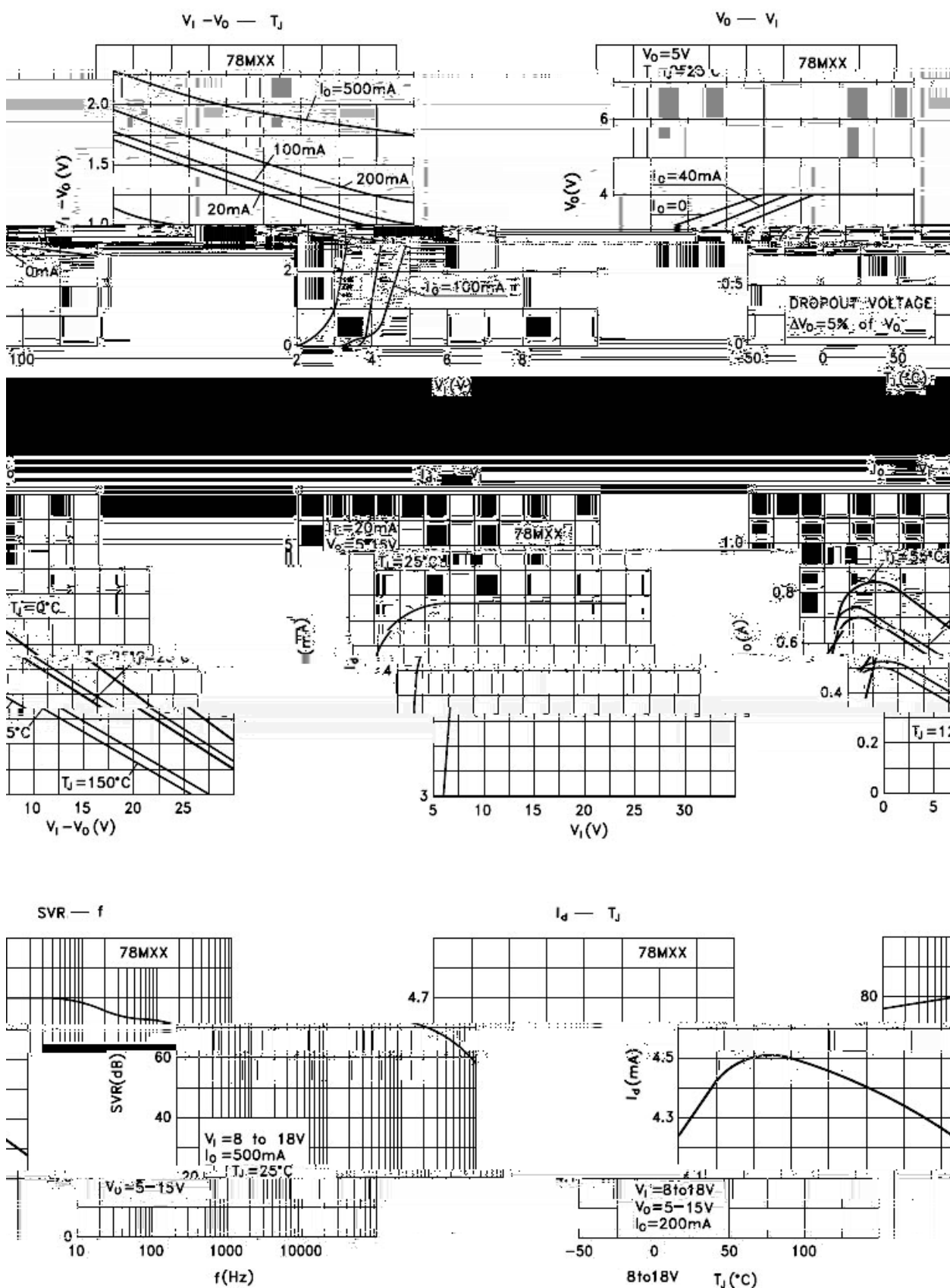
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Input voltage	V_i	35	V
Thermal Resistance Junction-ambient	$R_{\theta JA}$	100	/W
Thermal Resistance Junction-case	$R_{\theta JC}$	8.0	/W
Operating Junction Temperature Range	T_{OPR}	0 125	
Storage temperature range	T_{stg}	-65 150	

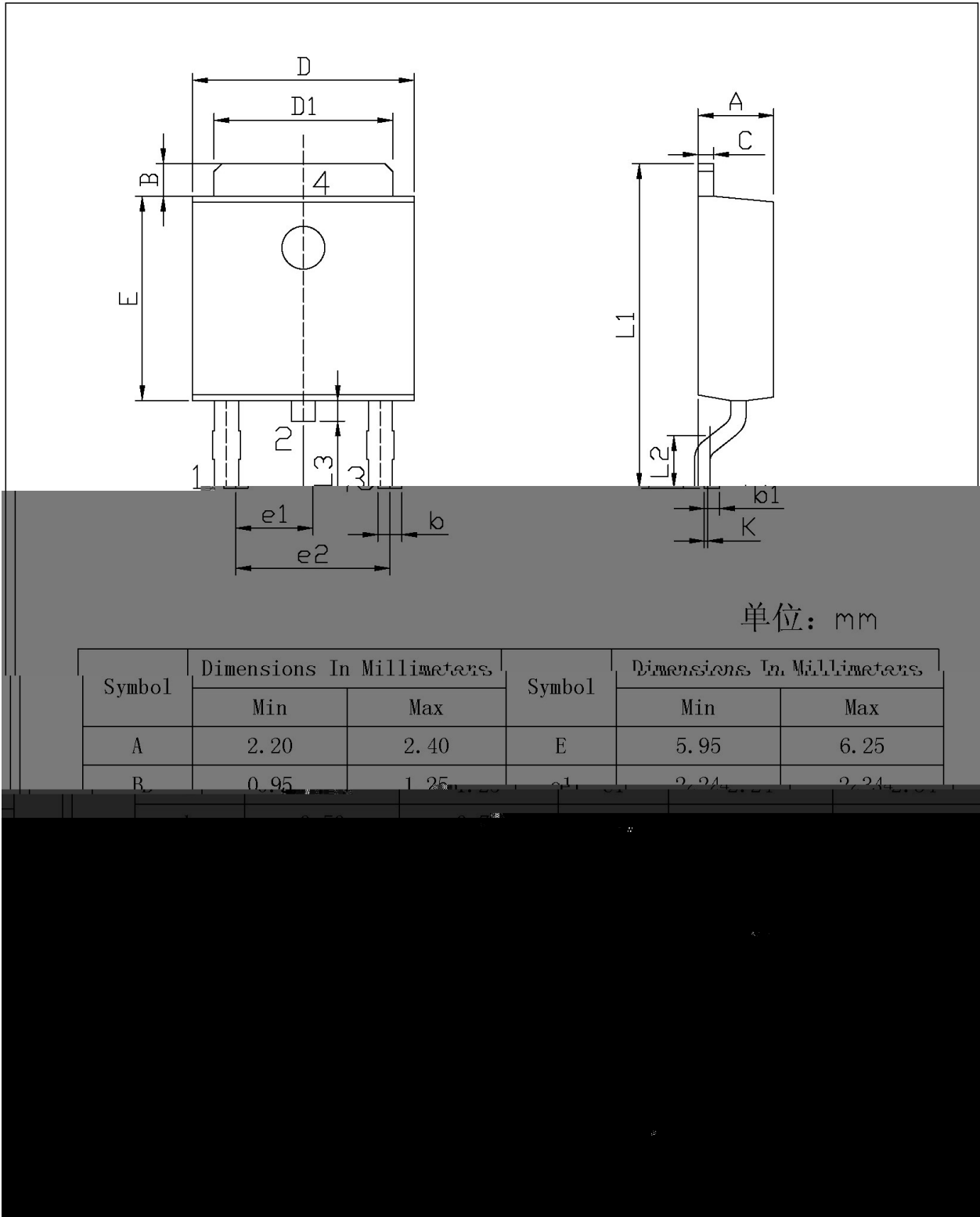
/ Electrical Characteristics(Ta=25 $V_i=19V, I_o=350mA$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25$	11.5	12	12.5	V
		$V_i=14.5V-27V$ $I_o=5mA-350mA$	11.4	12	12.6	V
Load Regulation	V_o	$T_j=25$ $I_o=5mA-500mA$			240	mV
		$T_j=25$ $I_o=5mA-200mA$			120	mV
Line regulation	V_o	$T_j=25$ $V_i=14.5V-30V$			100	mV
		$T_j=25$ $V_i=16V-30V$			50	mV
Output Noise Voltage	V_N	$T_j=25$ $B=10Hz-100KHz$		75		μV
Supply Voltage Rejection	SVR	$f=120Hz$ $V_i=15V-25V$	55			dB
Short Circuit Current	I_{sc}	$V_i=35V$ $T_j=25$		240		mA
Quiescent Current	I_d	$T_j=25$			6.0	mA
Quiescent Current Change	I_d	$V_i=14.5V-30V$ $I_o=200mA$			0.8	mA
		$I_o=5mA-350mA$ $T_j=0-125$			0.5	mA
Output Voltage Drift	V_o/ T	$I_o=5mA$		1.0		mV/
Dropout Voltage	V_d	$T_j=25$		2.0		V
Short Circuit Peak Current	I_{scp}	$T_j=25$		700		mA

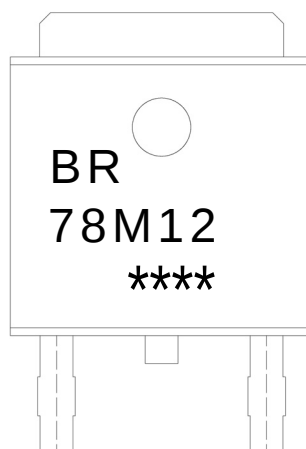
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

78M12

Note:

BR: Company Code.

78M12: Product Type.

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

