

Features

- Low gate charge
- Low C_{iss}
- Fast switching
- 100% avalanche tested
- Improved dv/dt capability

Maximum output current

I_{OM} : 0.5 A

Output voltage

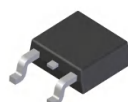
V_O : 12V

Continuous total dissipation

P_D : 1.25 W ($T_a = 25^\circ\text{C}$)



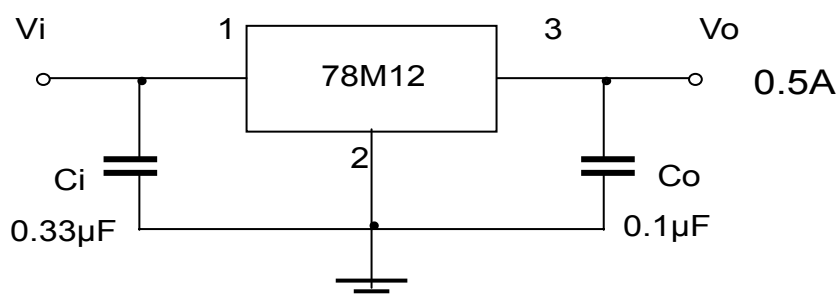
____ LOGO ____ GK ____ XXX ____ CODE ____



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-+150	$^\circ\text{C}$

TYPICAL APPLICATION



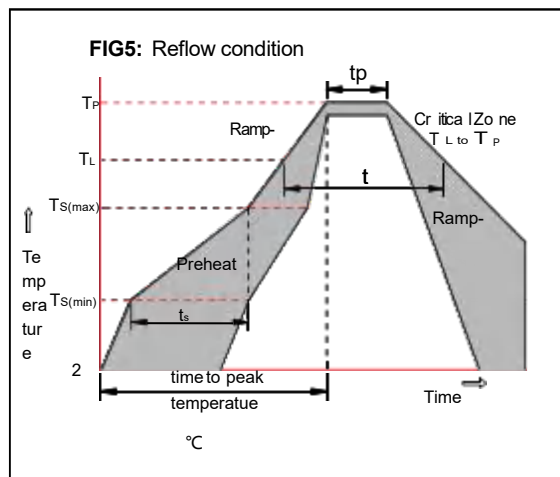
Electrical Characteristics

($V_i=19V$, $I_o=350mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	V_o		25°C	11.5	12	12.5	V
		$14.5 \leq V_i \leq 27V$, $I_o=5mA-350mA$ $P_o \leq 1.25W$	0-125°C	11.4	12	12.6	V
Load Regulation	ΔV_o	$I_o=5mA-500mA$	25°C		25	240	mV
		$I_o=5mA-200mA$	25°C		10	120	mV
Line Regulation	ΔV_o	$14.5V \leq V_i \leq 30V$, $I_o=200mA$	25°C		10	100	mV
		$16V \leq V_i \leq 30V$, $I_o=200mA$	25°C		3	50	mV
Quiescent Current	I_q		25°C		4.6	6	mA
Quiescent Current Change	ΔI_q	$14.5V \leq V_i \leq 30V$, $I_o=200mA$	0-125°C			0.8	mA
	ΔI_q	$5mA \leq I_o \leq 350mA$	0-125°C			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C		75		μV
Ripple Rejection	RR	$15 \leq V_i \leq 25V$, $f=120Hz$, $I_o=300mA$	0-125°C	55	80		dB
Dropout Voltage	V_d	$I_o=350mA$	25°C		2		V
Short Circuit Current	I_{sc}	$V_i=19V$	25°C		240		mA
Peak Current	I_{pk}		25°C		0.7		A

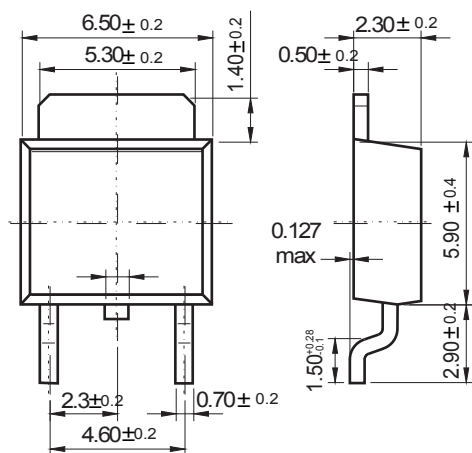
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

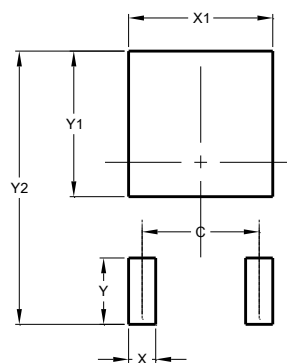


Package Dimensions & Suggested Pad Layout

TO-252

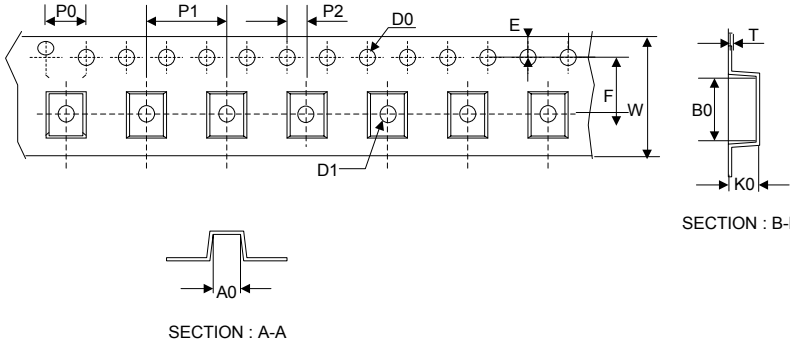
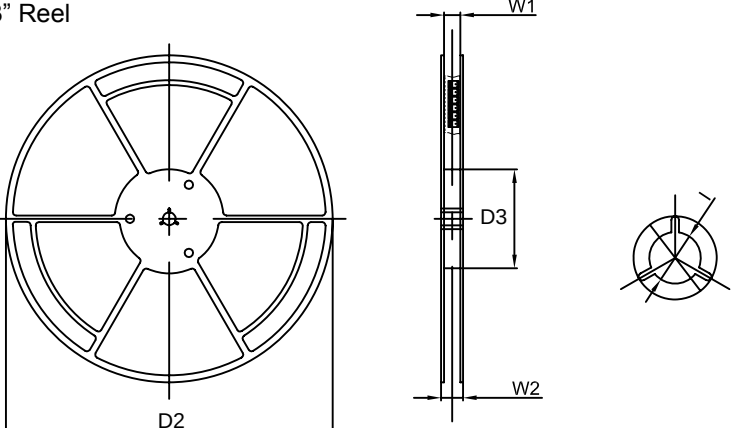


Dimensions in inches and (millimeters)



Dimensions	Value (in mm)
C	4.55
X	1.50
X1	5.80
Y	2.70
Y1	6.00
Y2	10.90

Tape & reel specification

Tape		Symbol	Dimension (mm)
 SECTION : A-A SECTION : B-B		P0	4.00±0.20
		P1	8.00±0.20
		P2	2.00±0.20
		D0	1.55±0.15
		D1	1.55±0.20
		E	1.75±0.20
		F	7.50±0.20
		W	16.00±0.20
		A0	7.10±0.20
		B0	10.50±0.20
		K0	2.70±0.20
		T	0.30±0.10
		D2	330.0±5.0
		D3	100.0±4.0
		W1	20.0±5.0
13" Reel		W2	25.0±5.0
		I	13.0±2.0
		Quantity: 2500PCS	