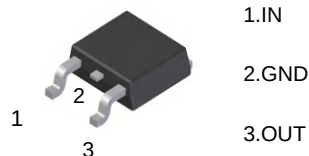
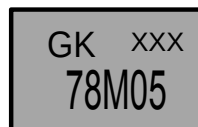


Features

Low gate charge
Low C_{iss}
Fast switching
100% avalanche tested
Improved dv/dt capability
High output current
 I_{OM} : 0.5 A
Output voltage
 V_O : 5V
Continuous total dissipation
 P_D : 1.25 W ($T_a = 25^\circ\text{C}$)

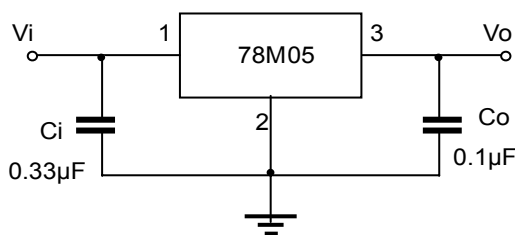


1.IN
2.GND
3.OUT

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

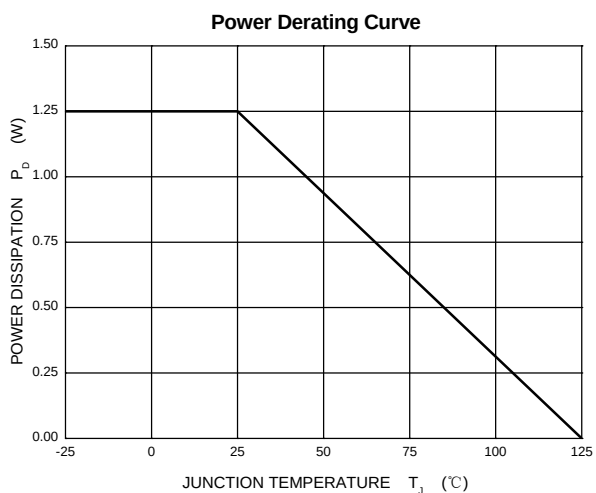
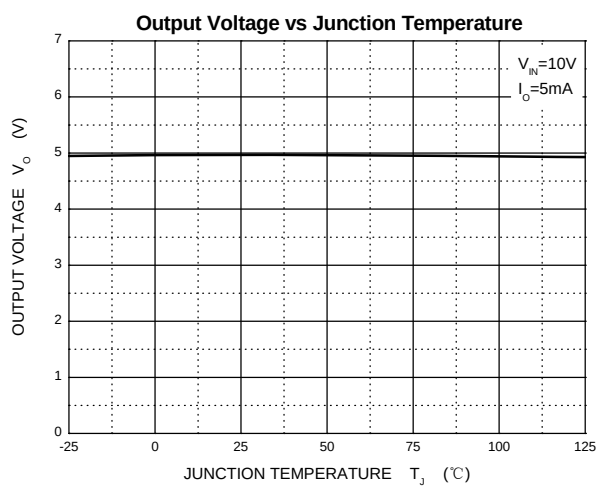
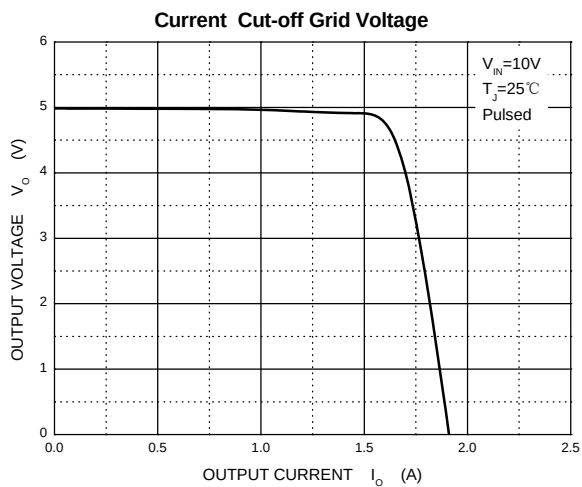
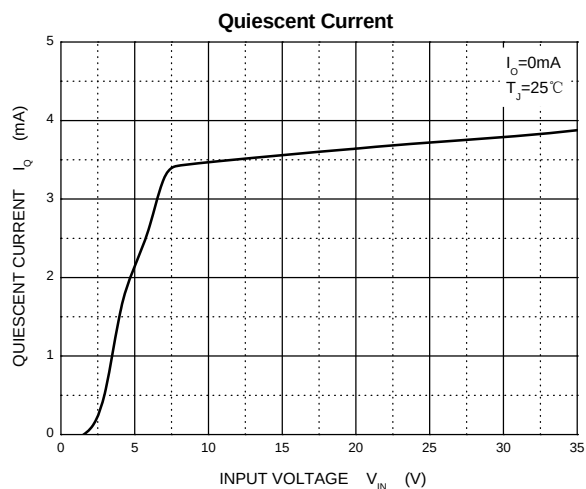
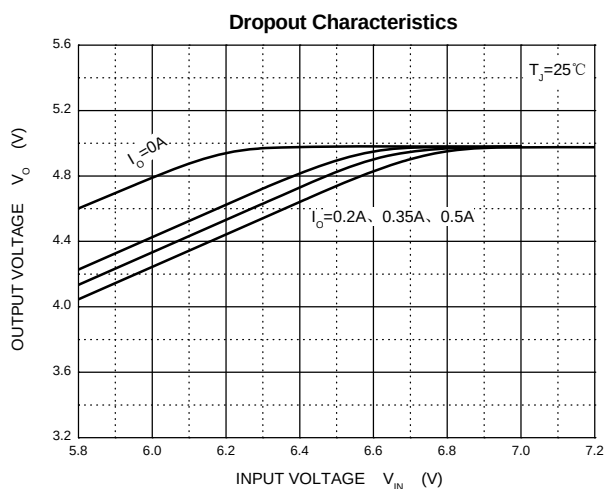
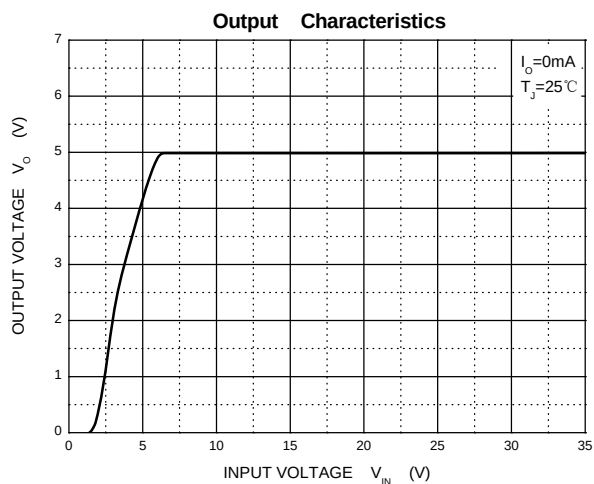
Electrical Characteristics

(Refer to the test circuits, $I_O=750\text{mA}$, $V_I=10\text{V}$, $C_I=0.33\mu\text{F}$, $C_O=0.1\mu\text{F}$ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	V_O		25°C	4.8	5	5.2	V
		$7\text{V} \leq V_i \leq 20\text{V}$, $I_O=5\text{mA}-350\text{mA}$	-25~125°C	4.75	5	5.25	V
Load Regulation	ΔV_O	$I_O=5\text{mA}-0.5\text{A}$	25°C		15	100	mV
		$I_O=5\text{mA}-200\text{mA}$	25°C		5	50	mV
Line Regulation	ΔV_O	$7\text{V} \leq V_i \leq 25\text{V}$, $I_O=200\text{mA}$	25°C		3	100	mV
		$8\text{V} \leq V_i \leq 25\text{V}$, $I_O=200\text{mA}$	25°C		1	50	mV
Quiescent Current	I_q		25°C		4.2	6	mA
Quiescent Current Change	ΔI_q	$8\text{V} \leq V_i \leq 25\text{V}$, $I_O=200\text{mA}$	-25~125°C			0.8	mA
	ΔI_q	$5\text{mA} \leq I_O \leq 350\text{mA}$	-25~125°C			0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25°C		40	200	$\mu\text{V}/V_O$
Ripple Rejection	RR	$8\text{V} \leq V_i \leq 18\text{V}$, $f=120\text{Hz}$, $I_O=300\text{mA}$	-25~125°C	62	80		dB
Dropout Voltage	V_d	$I_O=350\text{mA}$	25°C		2	2.5	V
Short Circuit Current	I_{sc}	$V_i=10\text{V}$	25°C		300		mA
Peak Current	I_{pk}		25°C		0.5		A

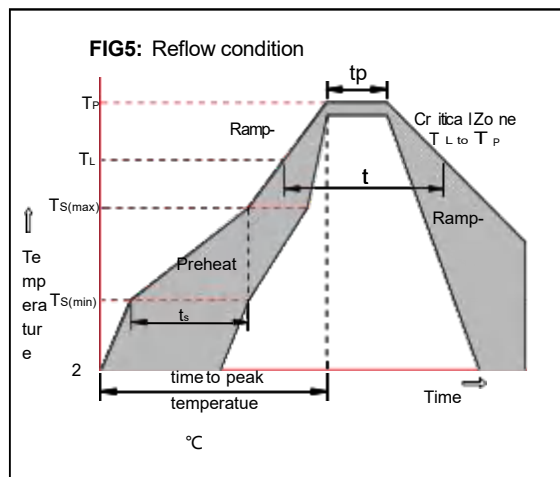
* Pulse test.

RATING AND CHARACTERISTIC CURVES



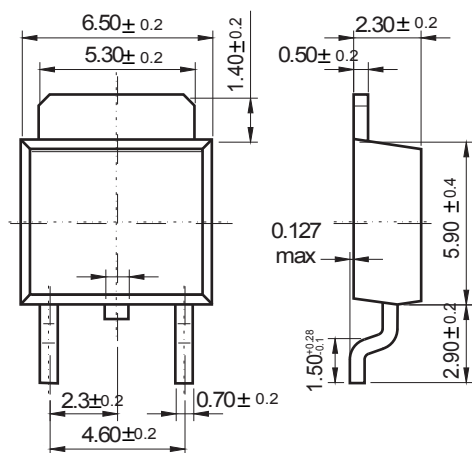
Soldering parameters

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

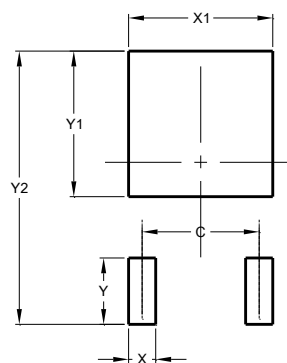


Package Dimensions & Suggested Pad Layout

TO-252

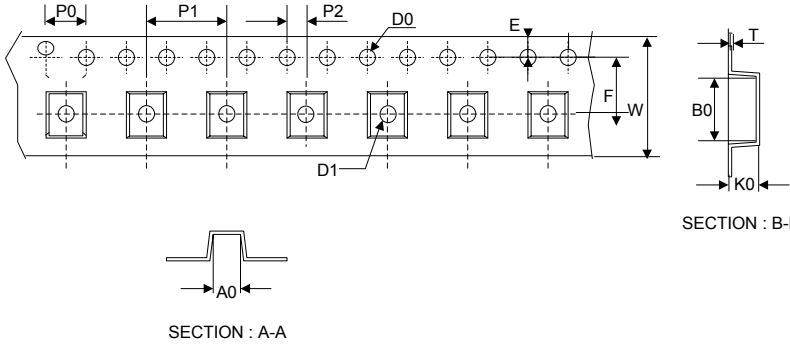
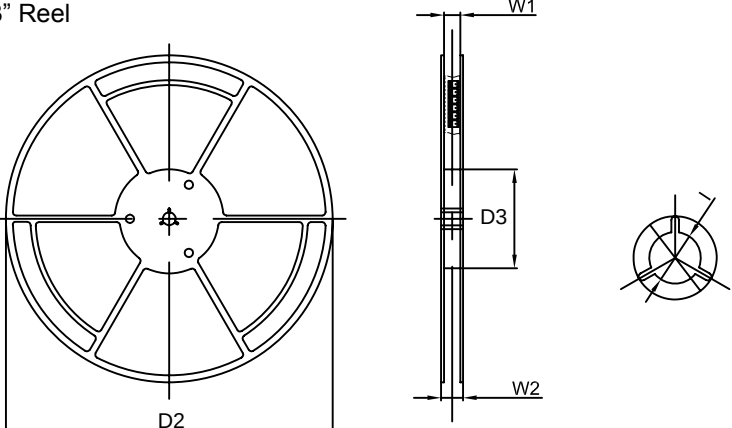


Dimensions in inches and (millimeters)



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	