

PQ015YZ5MZ Series/ PQ015YZ01Z Series

■ Features

- Low voltage operation (Minimum operating voltage:1.7V)
1.8V input → available 1.0 to 1.5V.
- SC-63 package.

■ Applications

- Peripheral equipment of personal computers.
- Power supplies for various electronic equipment such as DVD player or STB.

■ Model Line-up

Output current (I _O)	Package type	Variable output
0.5A	Taping	PQ015YZ5MZP
	Sleeve	PQ015YZ5MZZ
1A	Taping	PQ015YZ01ZP
	Sleeve	PQ015YZ01ZZ

■ Absolute Maximum Ratings

(T_a=25°C)

Parameter	Symbol	Rating	Unit
*1 Input voltage	V _{IN}	3.7	V
*1 Bias supply voltage	V _B	7	V
*1 Output adjustment terminal voltage	V _{ADJ}	5	V
Output current	I _O	PQ015YZ5MZ Series	0.5
		PQ015YZ01Z Series	1
*2 Power dissipation	P _D	8	W
*3 Junction temperature	T _j	150	°C
Operating temperature	T _{opr}	-25 to +85	°C
Storage temperature	T _{stg}	-40 to +150	°C
Soldering temperature	T _{sol}	260 (10s)	°C

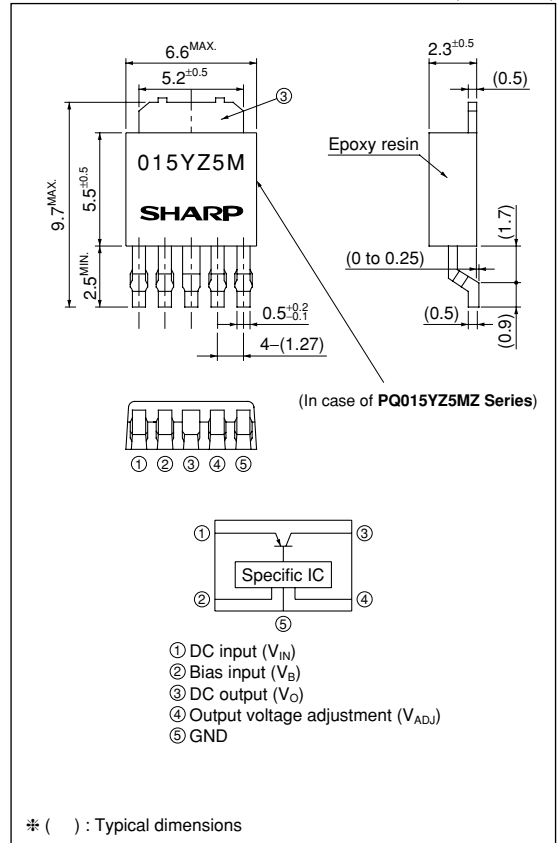
*1 All are open except GND and applicable terminals

*2 P_D:With infinite heat sink*3 Overheat protection may operate at the condition T_j=125°C to 150°C

SC-63 Package, Low Voltage Operation Low Power-loss Voltage Regulator

■ Outline Dimensions

(Unit : mm)



■ Electrical Characteristics

(Unless otherwise specified, condition shall be $V_{IN}=1.8V$, $V_B=3.3V$, $V_O=1.2V$ ($R_1=1k\Omega$), $I_O=0.3A$, $T_a=25^\circ C$, (**PQ015YZ5MZ**))

(Unless otherwise specified, condition shall be $V_{IN}=1.8V$, $V_B=3.3V$, $V_O=1.2V$ ($R_1=1k\Omega$), $I_O=0.5A$, $T_a=25^\circ C$, (**PQ015YZ01Z**))

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit			
Input voltage range	V_{IN}	—	1.7	—	3.7	V			
Bias voltage	V_B	—	2.35	—	7	V			
Output voltage	V_O	—	1.0	—	1.5	V			
Load regulation	PQ015YZ5MZ PQ015YZ01Z	$R_{eg}L$	$I_O=5mA$ to $0.5A$		—	0.2	1	%	
			$I_O=5mA$ to $1A$						
Line regulation	$R_{eg}I$	$V_{IN}=1.7$ to $3.7V$, $V_B=2.35$ to $7V$, $I_O=5mA$	—	0.2	1	—	0.2	1	%
Ripple Rejection	RR1	Refer to Fig.2	—	65	—	—	—	—	dB
	RR2	Refer to Fig.3	—	60	—	—	—	—	dB
Reference voltage	V_{ref}	—	0.97	1.0	1.03	—	—	—	V
Reference voltage temperature coefficient	$T_C V_{ref}$	$T_j=0$ to $125^\circ C$, $I_O=5mA$	—	± 0.5	—	—	—	—	%
Bias in flow current	I_B	—	—	1.5	3	—	—	—	mA

Fig.1 Standard Test Circuit

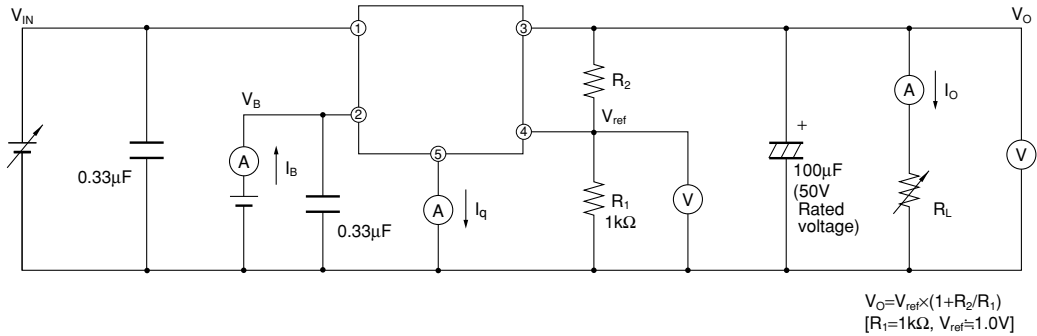


Fig.2 Test Circuit for Ripple Rejection

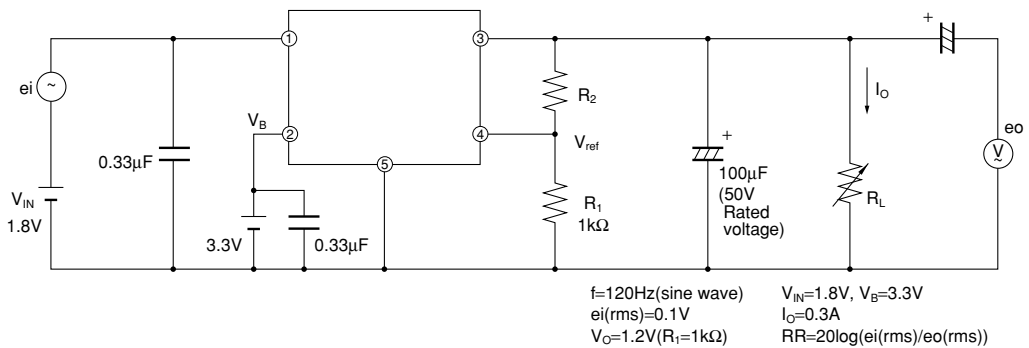


Fig.3 Test Circuit for Ripple Rejection

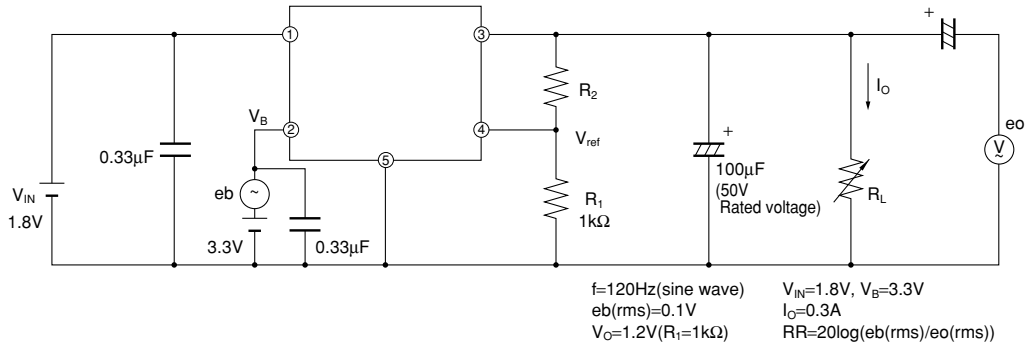
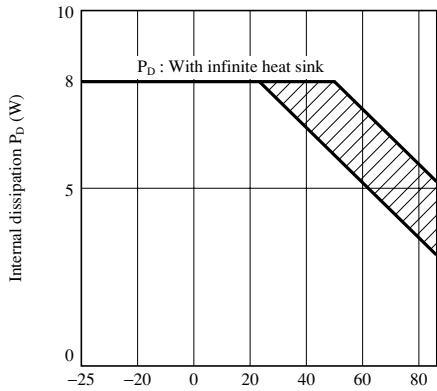


Fig.4 Internal Dissipation vs. Ambient Temperature



Note) Oblique line prtion:Overheat protection may operate in this area

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