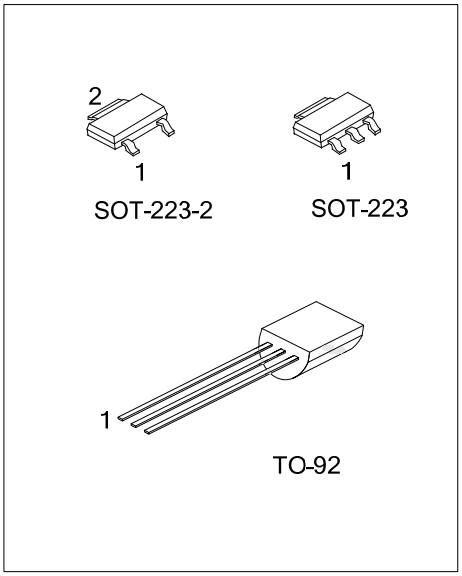
0.8A TRIAC

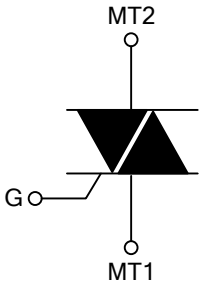


■ DESCRIPTION

The UTC **Z00607** is a 0.8A triac, it uses UTC's advanced technology to provide customers with low gate trigger current.

The UTC **Z00607** is suitable for low power AC switching applications and driving microcontrollers.

■ SYMBOL

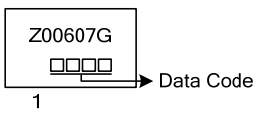
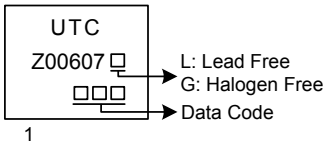


■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
-	Z00607G-AA2-R	SOT-223-2	MT1	MT2	GATE	Tape Reel
-	Z00607G-AA3-R	SOT-223	MT1	MT2	GATE	Tape Reel
Z00607L-T92-B	Z00607G-T92-B	TO-92	MT1	GATE	MT2	Tape Box
Z00607L-T92-K	Z00607G-T92-K	TO-92	MT1	GATE	MT2	Bulk

Z00607G-AA2-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel, B: Tape Box, K: Bulk (2) AA2: SOT-223-2, AA3: SOT-223, T92: TO-92 (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING

SOT-223-2 / SOT-223	TO-92
	

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER			SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltage			V_{DRM}	600	V
RMS On-State Current (Full Sine Wave)		T_{MB}=50°C	$I_{T(RMS)}$	0.8	A
Non Repetitive Surge Peak On-State Current (Full Cycle, T_J initial=25°C)	F=50Hz	t=20ms	I_{TSM}	9	A
	F=60Hz	t=16.7ms		9.5	
I^2t Value for Fusing	t_P=10ms		I^2_t	0.45	A^2s
Critical Rate of Rise of On-State Current I_G=2×I_{GT}, t_r≤100ns	F=120Hz	T_J=110°C	dI/dt	20	A/μs
Peak Gate Current	t_P=20μs	T_J=110°C	I_{GM}	1	A
Average Gate Power Dissipation		T_J=110°C	$P_{G(AV)}$	0.1	W
Operating Junction Temperature Range			T_J	-40 ~ +110	°C
Storage Junction Temperature Range			T_{STG}	-40 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Lead (AC)	SOT-223-2 SOT-223	$θ_{JLEAD}$	25	°C/W
	TO-92		60	°C/W
Junction to Ambient	SOT-223-2 SOT-223	$θ_{JA}$	60	°C/W
	TO-92		150	°C/W

■ ELECTRICAL CHARACTERISTICS (T_J=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Gate Trigger Current (Note 1)	I_{GT}	V_D=12V, R_L=30Ω	I-II-III			5	mA
			IV			7	
Gate Trigger Voltage	V_{GT}		ALL			1.3	V
Gate Non-Trigger Voltage	V_{GD}	V_D=V_{DRM}, R_L=3.3KΩ, T_J=110°C	ALL	0.2			V
Holding Current (Note 2)	I_H	I_T=200mA				5	mA
Latching Current	I_L	I_G=1.2I_{GT}	I-III-IV			10	mA
			II			20	
Critical Rate of Rise of Off-State Voltage (Note 2)	dV/dt	V_D=67%V_{DRM}, Gate Open, T_J=110°C		10			V/μs
Critical Rate of Rise of Off-State Voltage at Commutation (Note 2)	(dV/dt)c	(dV/dt)c=0.35A/ms, T_J=110°C		1.5			V/μs
Peak On-State Voltage (Note 2)	V_{TM}	I_{TM}=1.1A, t_p=380μs	T_J=25°C			1.5	V
Threshold Voltage (Note 2)	V_{TO}		T_J=110°C			0.95	V
Dynamic Resistance (Note 2)	R_D		T_J=110°C			420	mΩ
Repetitive Peak Off-State Current	I_{DRM}	V_{DRM}=V_{RRM}=600V	T_J=25°C			5	μA
	I_{RRM}		T_J=110°C			0.1	mA

Notes: 1. Minimum I_{GT} is guaranteed at 5% of I_{GT} max.
2. For both polarities of MT2 referenced to MT1.