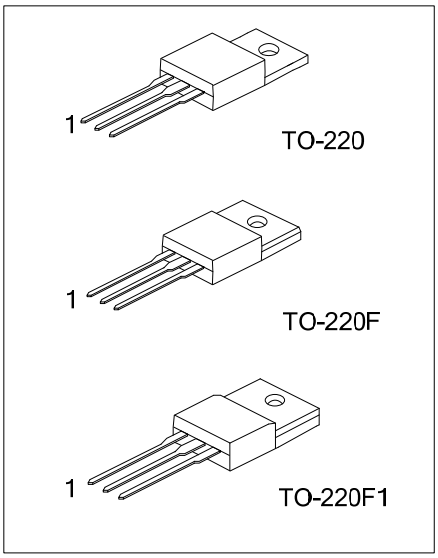
2A TRIACS



■ DESCRIPTION

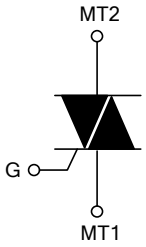
The UTC **SM2LZ47** is a 2A Triac, it uses UTC's advanced technology to provide customers with high critical rate of rise of off-state voltage at communication, high repetitive peak off-state voltage and high R.M.S. on-state current, etc.

The UTC **SM2LZ47** is suitable for AC power control applications, etc.

■ FEATURES

* High R.M.S. On−State Current: 2A
* High Repetitive Peak Off−State Voltage: 800V
* High Critical Rate of Rise of Off-State Voltage at Communication(Min.=5V/μs)

■ SYMBOL



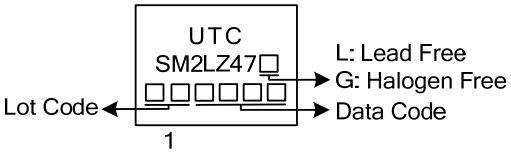
■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SM2LZ47L-TA3T	SM2LZ47G-TA3-T	TO-220	MT1	MT2	G	Tube
SM2LZ47L-TF1-T	SM2LZ47G-TF1-T	TO-220F1	MT1	MT2	G	Tube
SM2LZ47L-TF3-T	SM2LZ47G-TF3-T	TO-220F	MT1	MT2	G	Tube

Note: Pin Assignment: MT1: MT1 MT2: MT2 G: GATE

SM2LZ47L-TA3-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) TA3: TO-220, TF3: TO-220F, TF1: TO-220F1 (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltages		V_{DRM}	800	V
R. M. S On-State Current (Full Sine Waveform)		$I_{T(RMS)}$	2	A
Non Repetitive Peak One Cycle Surge On-State Current	50Hz	I_{TSM}	8	A
	60Hz		8.8	A
I^2t Limit Value		I^2t	0.32	A^2s
Critical Rate of Rise of On-State Current (Note 1)		dI/dt	50	A/μs
Peak Gate Power Dissipation		P_{GM}	3	W
Average Gate Power Dissipation		$P_{G(AV)}$	0.3	W
Peak Gate Voltage		V_{FGM}	10	V
Peak Gate Current		I_{GM}	1.6	A
Isolation Voltage (AC, t=1min.)		V_{ISOL}	1500	V
Junction Temperature		T_J	-40~125	°C
Storage Temperature		T_{STG}	-40~125	°C

Notes: 1. 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.
2. dI/dt test condition：V_{DRM}= 400V, I_{TM} ≤ 3A, t_{gw}≥ 0μs, t_{gr}≤250ns, i_{gp}=I_{GT}×2.0

■ THERMAL RESISTANCES

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient (AC)	θ_{JA}	58	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Repetitive Peak Off-State Current	I_{DRM}	V_{DRM}=800V				20	μA
Gate Trigger Voltage	V_{GT}	V_D=12V, R_L=20Ω	T2+ G+			1.5	V
			T2+ G-			1.5	
			T2- G-			1.5	
Gate Trigger Current	I_{GT}	V_D=12V, R_L=20Ω	T2+ G+			10	mA
			T2+ G-			10	
			T2- G-			10	
Peak On-State Voltage	V_{TM}	I_{TM}=3A				2.0	V
Gate Non-Trigger Voltage	V_{GD}	V_D=800V, T_C=125°C		0.2			V
Holding Current	I_H	V_D=12V, I_{TM}=1A				10	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	V_{DRM}=800V, T_J=125°C, Exponential Rise			500		V/μs
Critical Rate of Rise of Off-State Voltage at Communication	(dV/dt)c	V_{DRM}=400V, T_J=125°C, (dI/dt)c=-0.5A/ms		5			V/μs