

■ Features

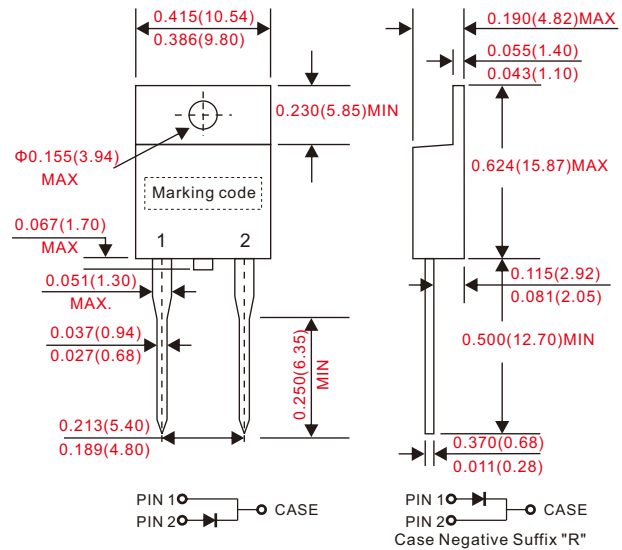
- Low power loss, high efficiency.
- High surge current capability.
- Ultra fast recovery time for switching mode application.
- Low power loss.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen free parts, ex. UT8005G.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC TO-220AC molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: As marked.
- Mounting Position : Any.
- Weight : Approximated 2.24 gram.

■ Outline

TO-220AC



■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter			Conditions			Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current						I _O			8.0	A
Forward surge current			8.3ms single half sine-wave superimposed on rate load (JEDEC method)			I _{FSM}			150	A
Reverse current			V _R = V _{RRM} T _A = 25°C		I _R			5.0	uA	
			V _R = V _{RRM} T _A = 125°C					100		
Diode junction capacitance			f=1MHz and applied 4V DC reverse voltage			C _J		80		pF
Storage temperature						T _{STG}	-55		+150	°C
Symbol	Marking code	Max. repetitive peak reverse voltage V _{RRM} (V)	Max. RMS voltage V _{RMS} (V)	Max. DC blocking voltage V _R (V)	Max. forward voltage @8A, T _A = 25°C V _F (V)	Max. reverse recovery time(1) T _{rr} (ns)	Operating temperature T _J (°C)			
UT8005	UT8005	50	35	50	1.0	50	-55 ~ +150			
UT801	UT801	100	70	100						
UT802	UT802	200	140	200						
UT804	UT804	400	280	400	1.40	75				
UT806	UT806	600	420	600	1.70					
UT808	UT808	800	560	800						

Note : 1. $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

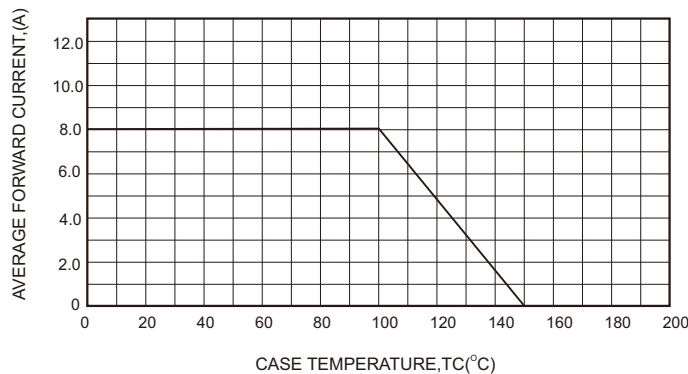


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

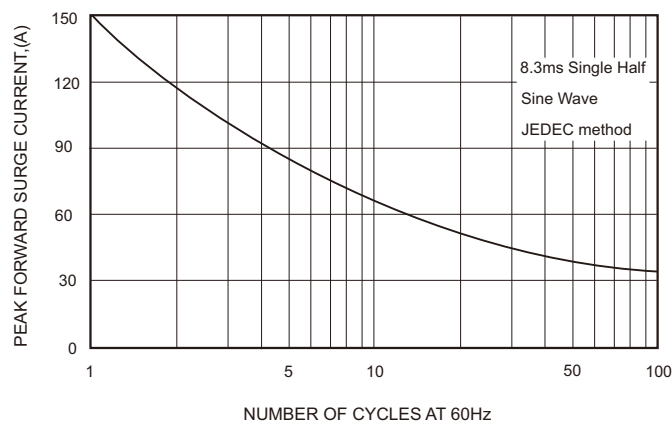


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE

RECOVERY TIME CHARACTERISTICS

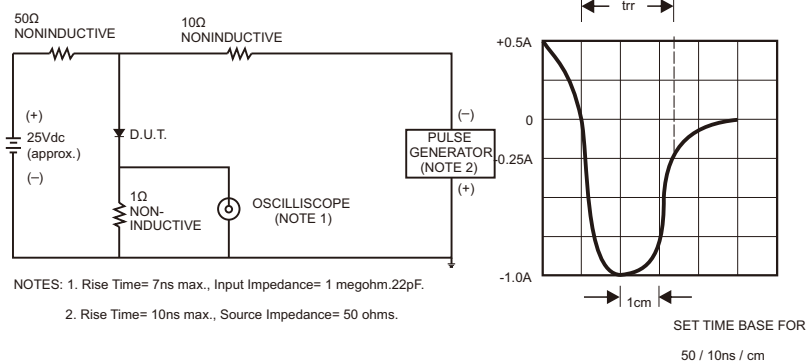


FIG.3-TYPICAL FORWARD CHARACTERISTICS

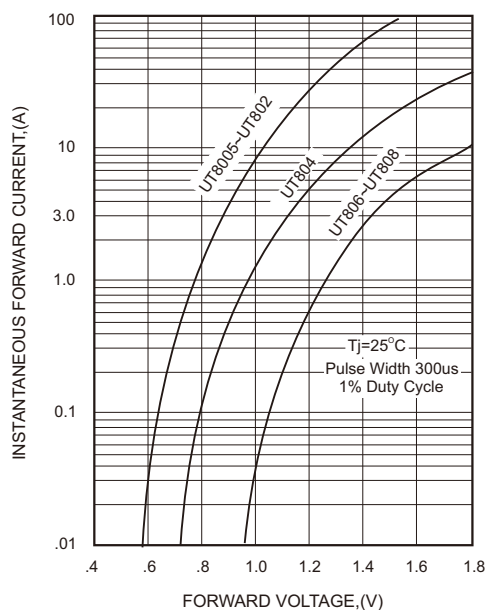
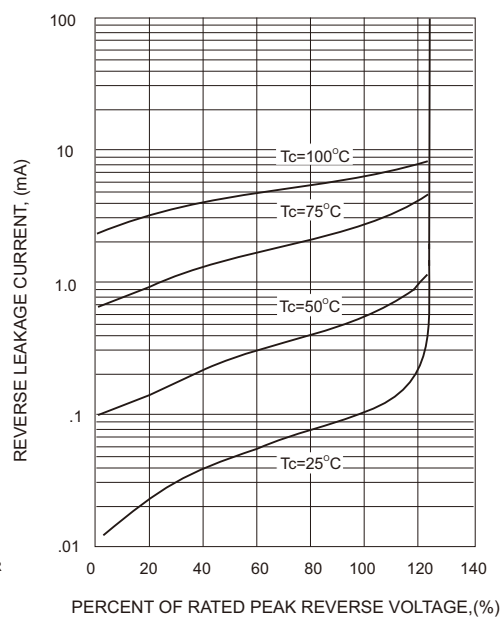


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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