TSR8T600ACT-SG
TSR8T600ACF-SG

03-Jun-2022

600V Schottky Diode

TO-220AC
TSR8T600ACT-SG

TO-220ACF
TSR8T600ACF-SG

PIN1

PIN2

Features

- Insulated device with intemal ceramic
- Low t_{RR} ,Very low switching losses
- High dif/dt capable (1000A/μs)
- High voltage rectifier

Applications

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Power Factor Correction (PFC) Boost Diode
- DC-AC Inverters
- Motor drive circuits

Maximum ratings and electrical characteristics (TJ = 25°C unless otherwise noted)

Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	600		V
Maximum average forward rectified current			IF(AV)	8		A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A			Trr	22		ns
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	80		A
Operating junction and storage temperature range			T_J, T_{STG}	-55 ~ +150		°C
Typical thermal resistance per leg	TO-220AC		$R_{\Theta JC}$	2		°C/W
	TO-220ACF			4		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	
	IF=2A	TJ=25°C		1.62	-	V
	IF=2A	TJ=125°C		1.55	-	
	IF=8A	TJ=25°C		1.95	2.20	
	IF=8A	TJ=125°C		1.87	1.98	
Instantaneous reverse current per diode at rated reverse voltage	TJ=25°C		IR(2)	1	50	uA
	TJ=125°C			30	300	uA

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Figure 1. Typical I_F vs V_F

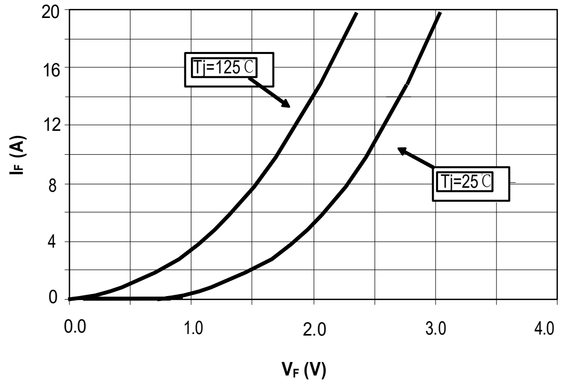


Figure 2. Typical Q_{RR} vs I_F at T_j = 125 °C

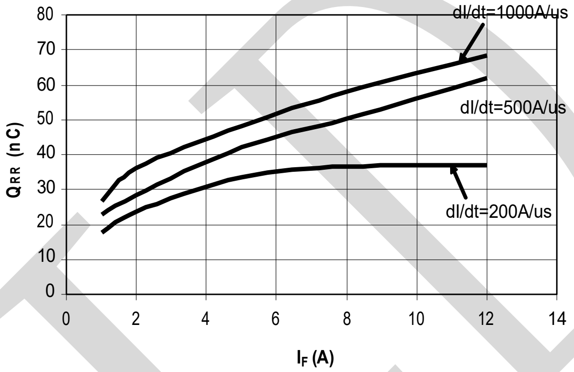


Figure 3. Typical t_{RR} vs I_F at T_J = 125℃

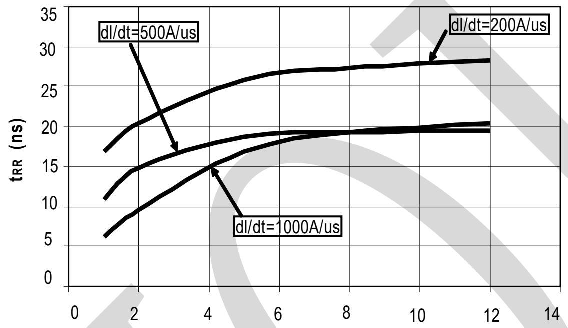


Figure 4. Current Derating, Case

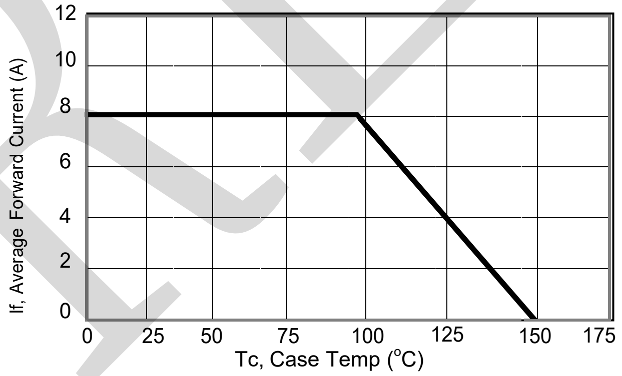
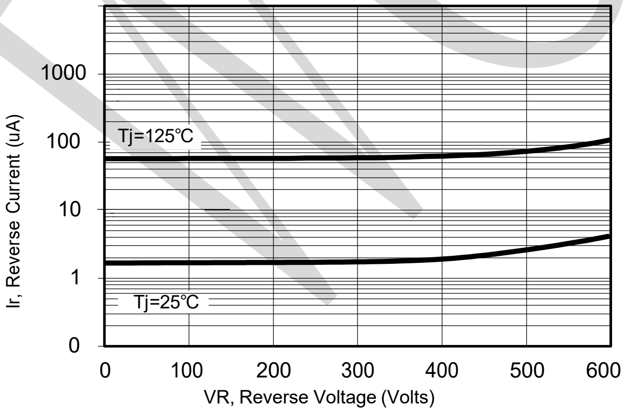


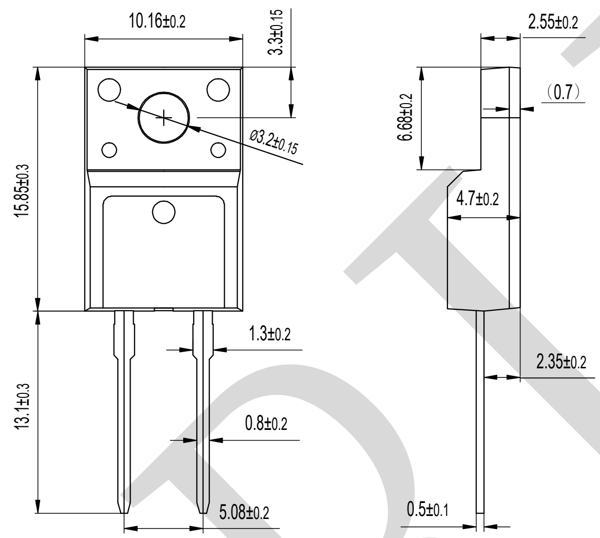
Figure 5. Typical Reverse Current



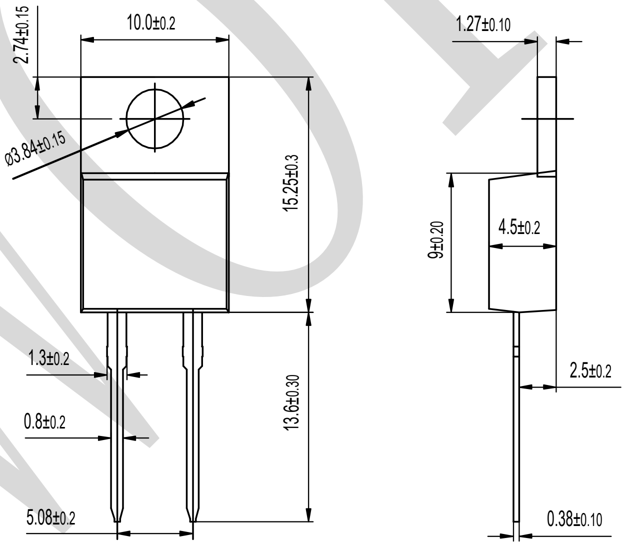
PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

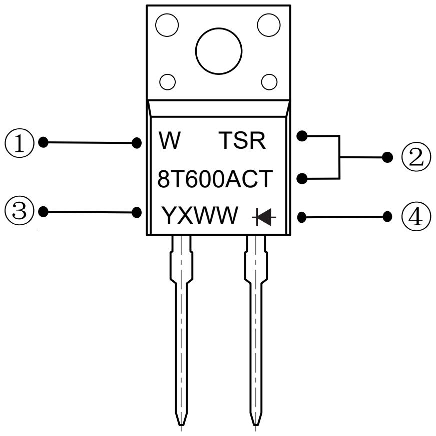
TO-220ACF Dimensions in millimeters



TO-220AC Dimensions in millimeters



Marking Information



①W : Company's trademark

②Product model : TSR8T600ACT-SG or TSR8T600ACF-SG

③PDC information：

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)

④ |◀ Single wafer