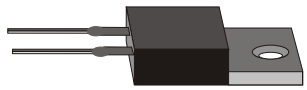
DSR8A600

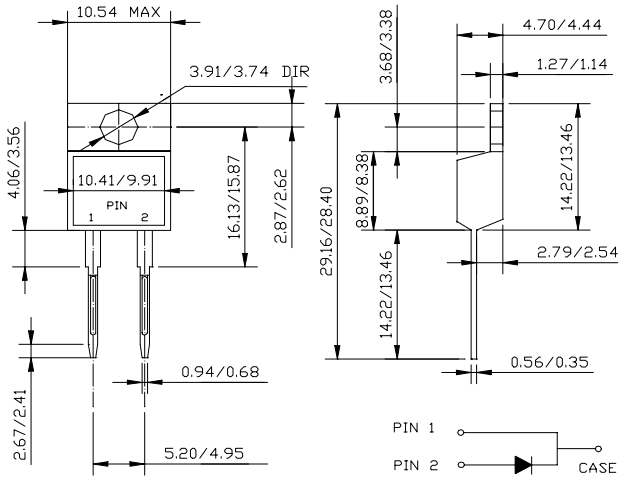
ULTRA FAST RECTIFIER DIODES

VOLTAGE RANGE: 50 - 600V

CURRENT: 8.0A



TO - 220AC



Features

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol,Isopropanol and similar solvents

Mechanical Data

- Case:TO-220AC
- Terminals: solderable per
- MIL- STD-202,Method 208
- Polarity: Color band denotes cathode
- Weight: 0.064 ounces,1.81 gram
- Mounting position: Any

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	DSR8A600	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward rectified current total device (rated V_R),T_C=150°C	$I_{(AV)}$	8.0	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	100	A
Maximum instantaneous @I_F=8.0A,T_C=25°C forward voltage (Note1) I_F=8.0A,T_C=150°C	V_F	1.50 1.20	V
Maximum reverse current @T_j=25°C at rated DC blocking voltage T_j=150°C	I_R	10 500	μA
Maximum reverse recovery time (Note2) (Note3)	t_{rr}	50 60	ns
Typical thermal resistance junction to case	$R_{\theta jC}$	2.0	°C/W
Operating junction temperature range	T_j	- 65 ---- + 175	°C
Storage temperature range	T_{STG}	- 65 ---- + 175	°C

NOTE:1.Pulse test:pulse width=300μs,duty cycle≤2.0%

2. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25 A.

3. Measured with I_F=1.0A,di/dt=50A/μs.

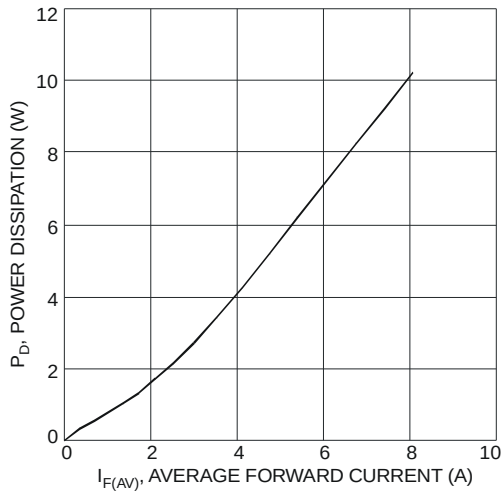


Fig. 1 Forward Power Dissipation

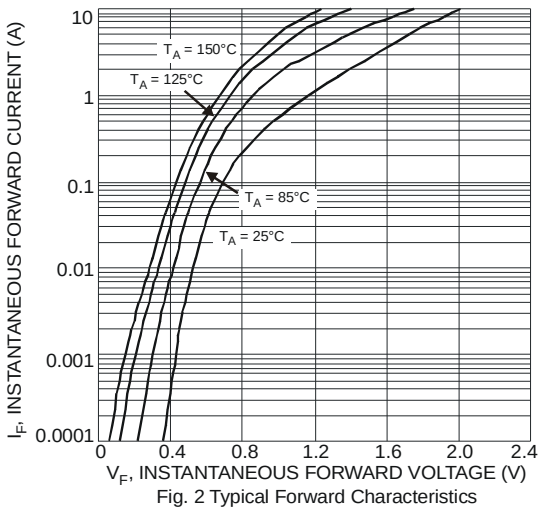


Fig. 2 Typical Forward Characteristics

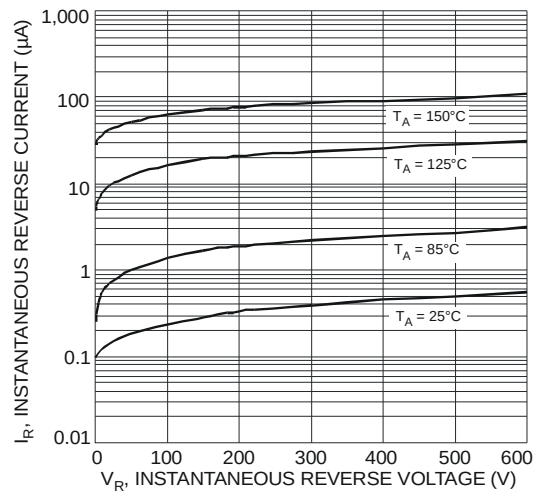


Fig. 3 Typical Reverse Characteristics

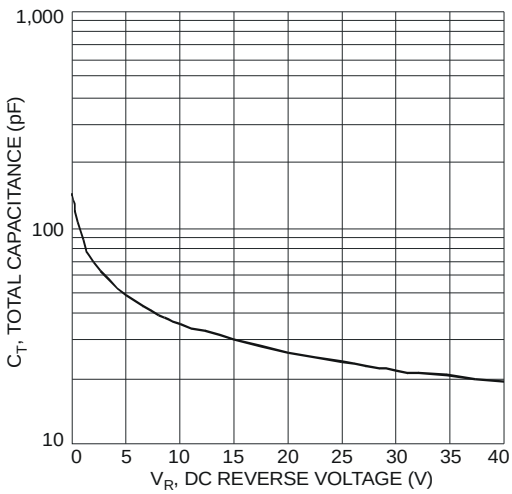


Fig. 4 Total Capacitance vs. Reverse Voltage

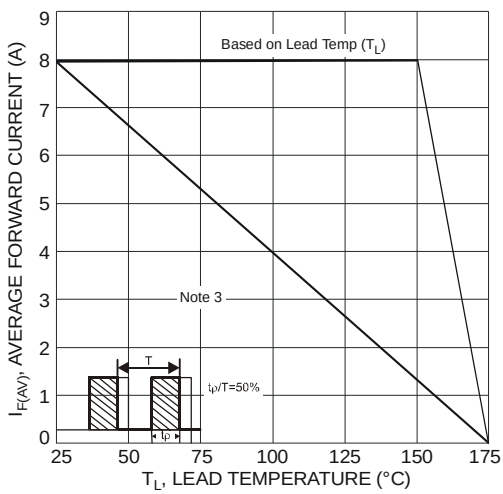


Fig. 5 Forward Current Derating Curve

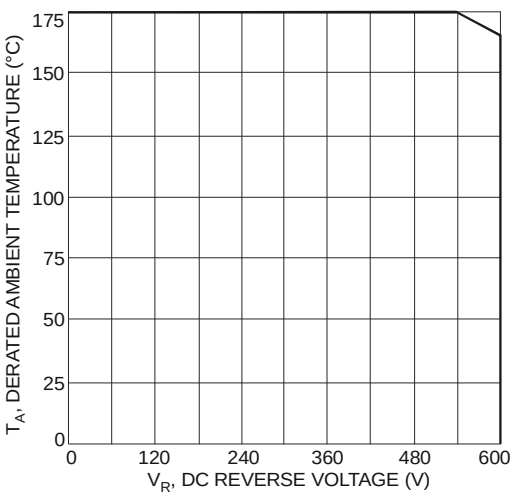


Fig. 6 Operating Temperature Derating