

## 75 AMP HIGH FREQUENCY TAB MOUNTED SOFT RECOVERY DIODES

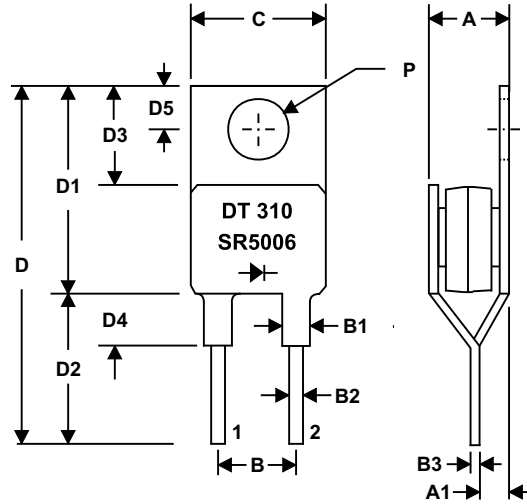
### FEATURES

- TRUE SOFT RECOVERY CHARACTERISTIC WITH NO RINGING, SPIKES, or OVERSHOOT
- HIGH FREQUENCY: 250 kHz  
FAST RECOVERY: 100nS - 150nS
- UNMATCHED PERFORMANCE - Minimal RFI/EMI, Reduced Power Losses, Extremely Cool Operation Increased Power Supply Efficiency
- VOID FREE Vacuum Die Soldering For Maximum Mechanical Strength And Heat Dissipation (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- Proprietary *SOFT GLASS* Junction Passivation For Superior Reliability and Performance
- Wide Range of Applications - DC Motor Controllers Inverters, Converters, Choppers, Power Supplies, etc.

### MECHANICAL DATA

- Structure: Epoxy encapsulated diode body with silver-plated copper tabs
- Finish: All external surfaces are silver plated for corrosion resistance and superior solderability
- Soldering Temperature: 250 °C maximum, 3/8" from case for 10 seconds
- Mounting: Lead or chassis mounted, same configuration as TO-220AB
- Mounting Torque: 8 in-lbs Max.
- Weight: 1.2 Ounces (3.6 Grams), approximately

### MECHANICAL SPECIFICATION



**DIE SIZE: 0.250" ROUND**  
**Largest Die Available**  
**In The Industry**



Sym	Min	Max
A	0.284	0.310
A1	0.080	0.115
B	0.170	0.210
B1	0.060	0.090
B2	0.025	0.045
B3	0.023	0.029
C	0.380	0.420
D		1.187
D1	0.560	0.625
D2		0.562
D3	0.230	0.270
D4		0.200
D5	0.100	0.120
P	0.139	0.147

ALL DIMENSIONS IN INCHES

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS					UNITS
		SR 7500	SR 7501	SR 7502	SR 7504	SR 7506	
Series Number							
Maximum DC Blocking Voltage	V <sub>RM</sub>	50	100	200	400	600	VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	
Average Forward Rectified Current	I <sub>o</sub>	75					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	800					
Maximum Forward Voltage at 35 Amps DC	V <sub>FM</sub>	1.2 (Typical 1.1)					VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage	I <sub>RM</sub>	@ T <sub>c</sub> = 25 °C					μA
		@ T <sub>c</sub> = 125 °C					
Typical Thermal Resistance, Junction to Case	R <sub>θJC</sub>	0.8					°C/W
Maximum Reverse Recovery Time - Soft Recovery	T <sub>RR</sub>	150 (Typ. 100)					nSec
Junction Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150					°C

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