



## SUPERFAST RECOVERY RECTIFIERS

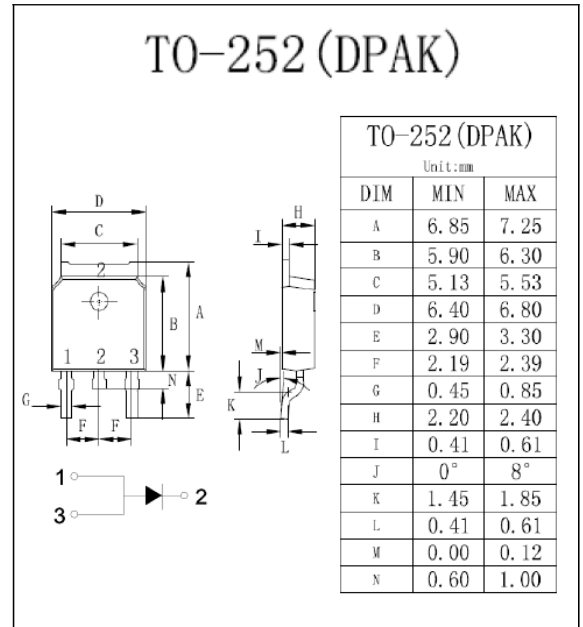
|         |            |
|---------|------------|
| VOLTAGE | 600 Volts  |
| CURRENT | 10 Amperes |

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability.
- High surge capability
- Ultra fast recovery time, high voltage.
- Lead free in comply with EU RoHS.

### MECHANICAL DATA

- Case: TO-252 molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| PARAMETER  | SYMBOL   | SFD1060S    | UNITS                       |
|--|--|-------------|-----------------------------|
| 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 Current at $T_c = 100^\circ\text{C}$                                       | $I_{F(AV)}$  | 10          | A                           |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$  | 150         | A                           |
| Forward Voltage at 10A   | Typ<br>Max<br>$V_F$  | 1.4<br>1.6  | V                           |
| Maximum DC Reverse Current at Rated DC Blocking Voltage  | $T_J=25^\circ\text{C}$<br>$T_J=125^\circ\text{C}$<br>$I_R$ | 10<br>500   | $\mu\text{A}$               |
| Reverse Recovery Time (Note 1)   | Typ<br>Max<br>$t_{rr}$                                     | 30<br>35    | ns                          |
| Typical Thermal Resistance (Note 2)  | $R_{\theta JC}$  | 4.6         | $^\circ\text{C} / \text{W}$ |
| Operating Junction and Storage Temperature Range   | $T_J, T_{STG}$   | -55 to +150 | $^\circ\text{C}$            |

#### NOTES:

1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .
2. Thermal resistance from Junction to case.



## RATING AND CHARACTERISTIC CURVES

