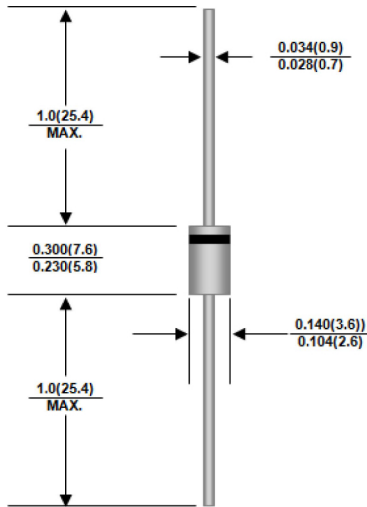


SUPER FAST RECTIFIER

Reverse Voltage - 780 Volts

Forward Current - 2.0 Amperes

DO-15



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Super fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-15 molded plastic body
Terminals: Plated axial leads, Solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.014 ounce, 0.395 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

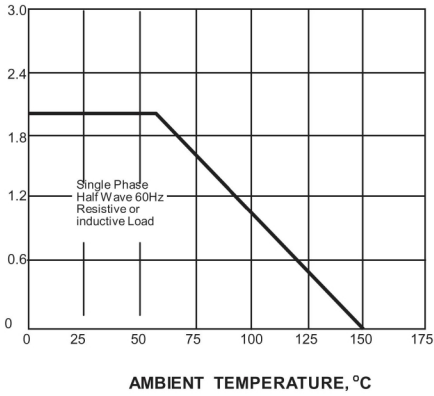
PARAMETER	SYMBOLS	SF29	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	780	VOLTS
Maximum RMS voltage	V_{RMS}	546	VOLTS
Maximum DC blocking voltage	V_{DC}	780	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	2.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60	Amps
Maximum instantaneous forward voltage at 2.0A	V_F	2.0	Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	10.0 50.0	A
Maximum reverse recovery time (NOTE 1)	t_{rr}	35	ns
Typical junction capacitance (NOTE 2)	C_J	20	pF
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +125	C

Note: 1. Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES SF29

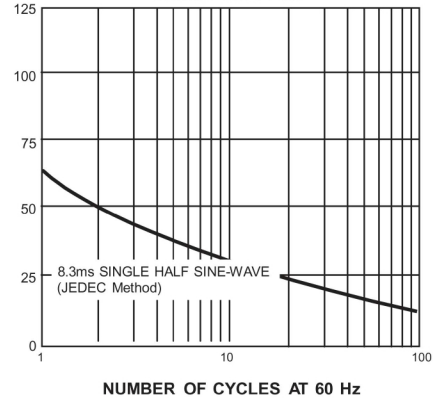
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



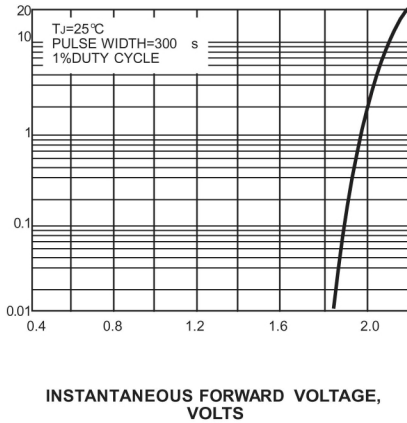
PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



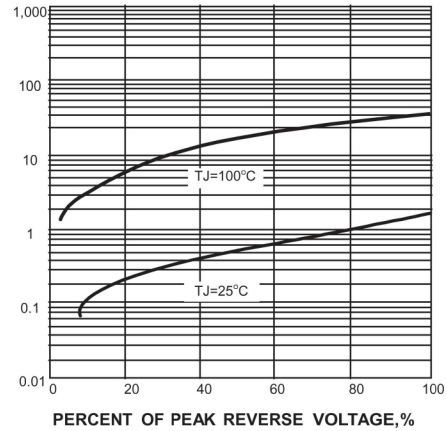
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



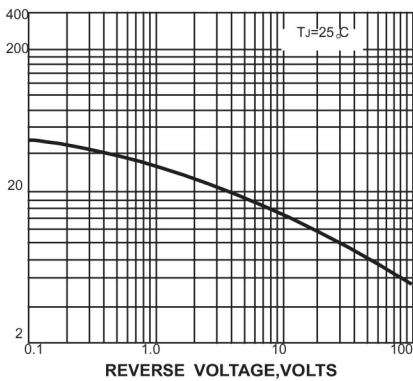
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
 $^\circ\text{C/W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

