

6.0Amp Super Fast Rectifiers

ER602 ~ ER606

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Super fast speed switching for high efficiency
- Open- Junction chip,silastic passivated
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

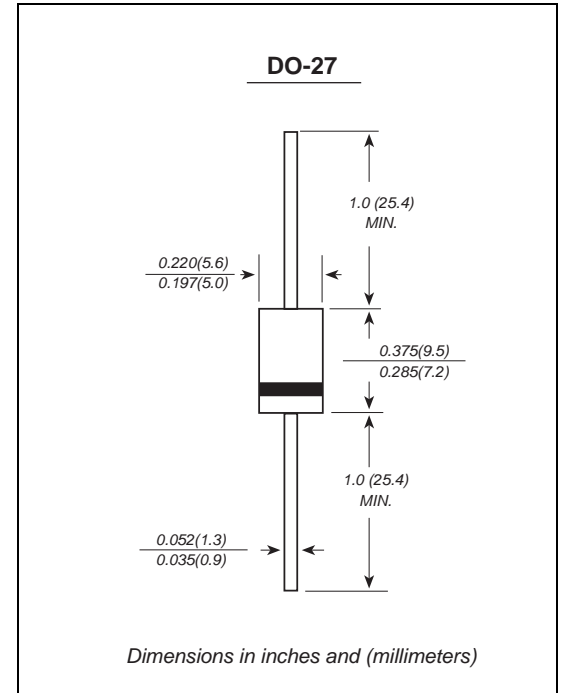
Case: JEDEC DO-27 molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight : 0.040 ounce, 1.10grams



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%.

	SYMBOLS	ER602	ER604	ER606	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	150	400	600	VOLTS
Maximum RMS voltage	V_{RMS}	105	280	420	VOLTS
Maximum DC blocking voltage	V_{DC}	150	400	600	VOLTS
Maximum average forward rectified current at $T_L=55^\circ C$	$I_{(AV)}$	6.0			Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200			Amps
Maximum instantaneous forward voltage at 6.0A	V_F	0.95	1.3	1.7	Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	I_R	5.0 50.0			μA
Maximum reverse recovery time (Note 1)	T_{rr}	35			ns
Typical junction capacitance (Note 2)	C_J	100	50		pF
Typical thermal resistance (Note 3)	R_{qJA}	30			$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +155			$^\circ C$

Note: 1.Reverse recovery time test 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

ER602 THRU ER606

FIG. 1- FORWARD CURRENT DERATING CURVE

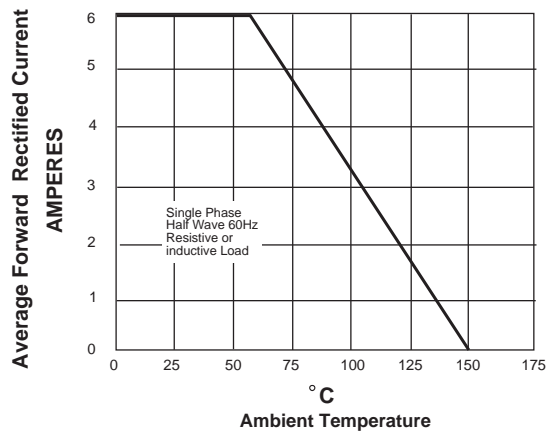


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

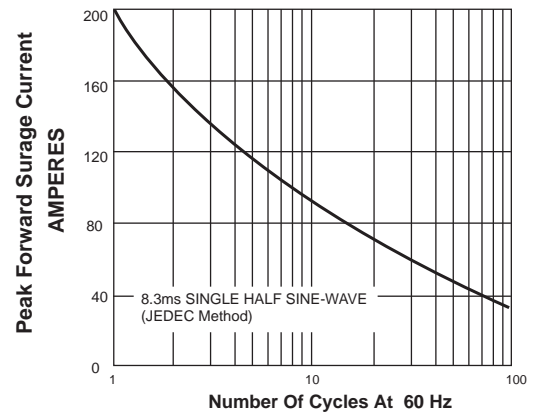


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

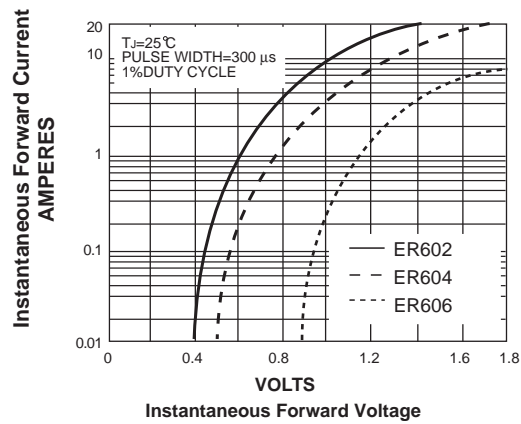


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

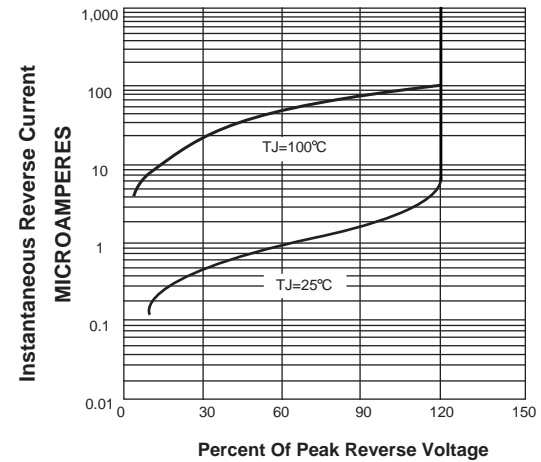


FIG. 5-TYPICAL JUNCTION CAPACITANCE

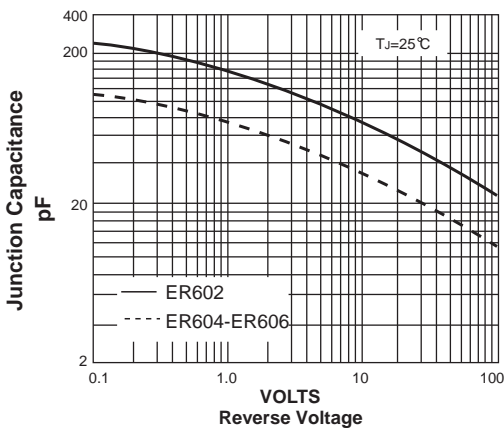


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

