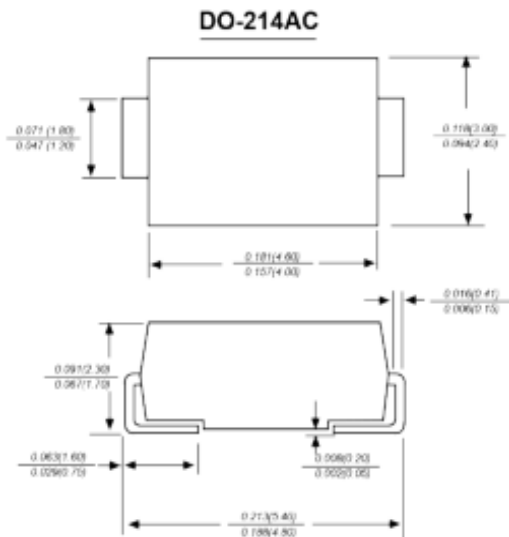


SURFACE MOUNT SUPER FAST RECTIFIER
Reverse Voltage - 50 to 800 Volts Forward Current - 2.0 Amperes



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Super fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.058 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%.

	SYMBOLS	ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	ES2K	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	560	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	VOLTS
Maximum average forward rectified current at $T_L=55^{\circ}\text{C}$	$I_{(AV)}$	2.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0								Amps
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.3		1.7		Volts
Maximum DC reverse current $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage $T_A=100^{\circ}\text{C}$	I_R	5.0 200.0								μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	35							65	ns
Typical junction capacitance (NOTE 2)	C_J	60.0								pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	40.0								$^{\circ}\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150								$^{\circ}\text{C}$

Note: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1-FORWARD CURRENT DERATING CURVE

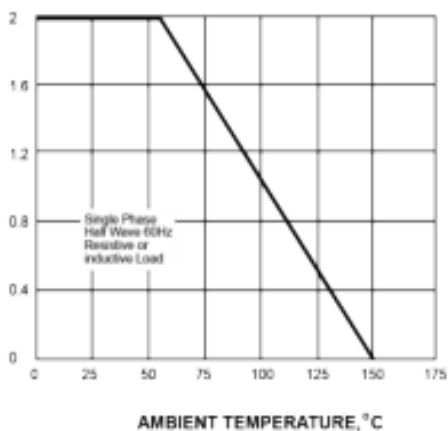


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

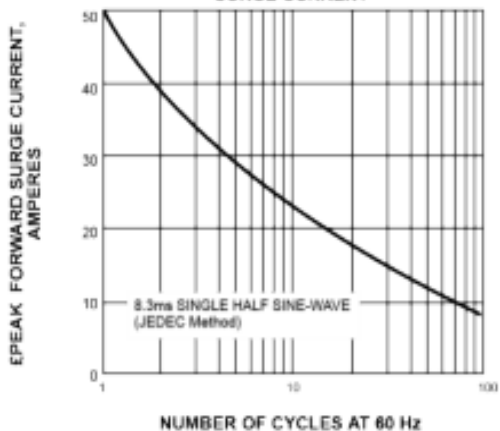


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

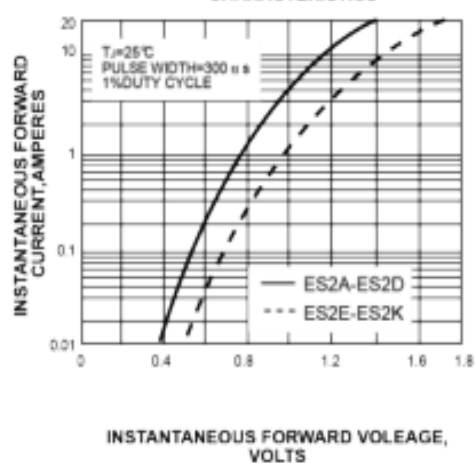


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

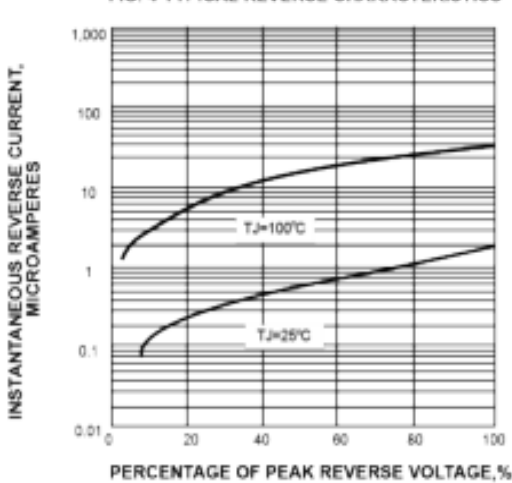


FIG. 5-TYPICAL JUNCTION CAPACITANCE

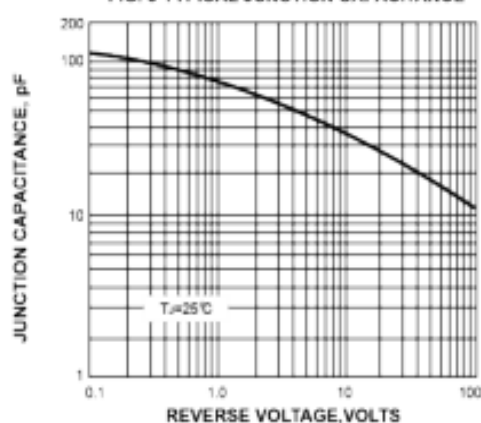


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

