



TAYCHIPST

ULTRAFast SURFACE MOUNT RECTIFIER

EGF1A THRU EGF1D

50V-200V 1.0A

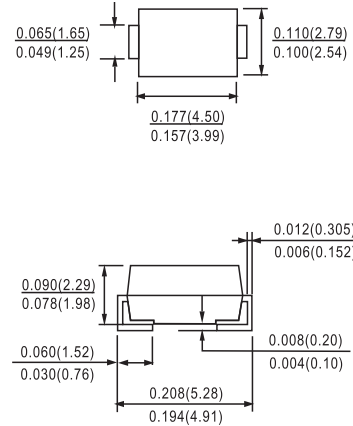
FEATURES

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Ideal for surface mount automotive applications
- High temperature metallurgically bonded construction
- Superfast recovery times for high efficiency
- Glass passivated cavity-free junction
- Built-in strain relief
- Easy pick and place
- High temperature soldering guaranteed: 450°C/5 seconds at terminals
- Complete device submersible temperature of 265°C for 10 seconds in solder bath

MECHANICAL DATA

- **Case:** JEDEC DO-214BA molded plastic over glass body
- **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Weight:** 0.0048 ounces, 0.120 gram

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	EGF1A	EGF1B	EGF1C	EGF1D	UNITS
Device Marking Code		EA	EB	EC	ED	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	Volts
Maximum RMS voltage	V _{RMS}	35	70	105	140	Volts
Maximum DC blocking voltage	V _{DC}	50	100	150	200	Volts
Maximum average forward rectified current at T _L =125°C	I _(AV)	1.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0				Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.0				Volts
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =125°C	I _R	5.0 50.0				μA
Typical reverse recovery time (NOTE 1)	t _{rr}	50.0				ns
Typical junction capacitance (NOTE 2)	C _J	15.0				pF
Typical thermal resistance (NOTE 3)	R _{θJA} R _{θJL}	85.0 30.0				°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-65 to +175				°C

NOTES:

- (1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
- (2) Measured at 1.0 MHz and applied V_R=4.0 Volts
- (3) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas



RATINGS AND CHARACTERISTICS CURVES EGF1A THRU EGF1D

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

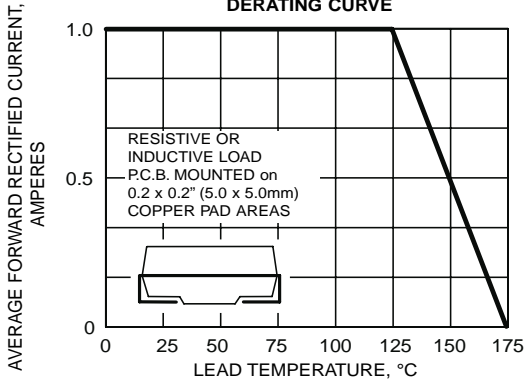


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

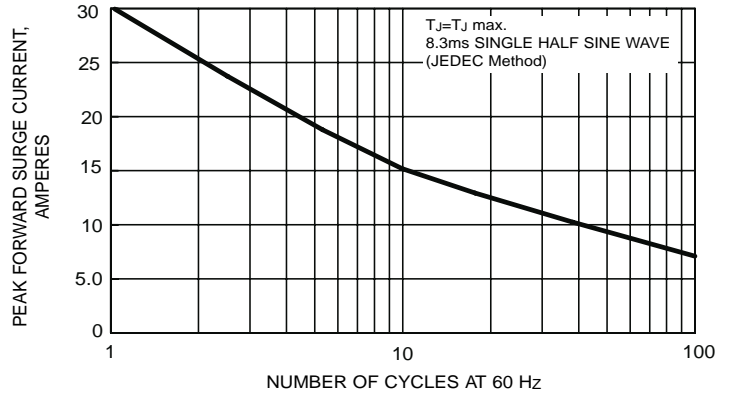


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

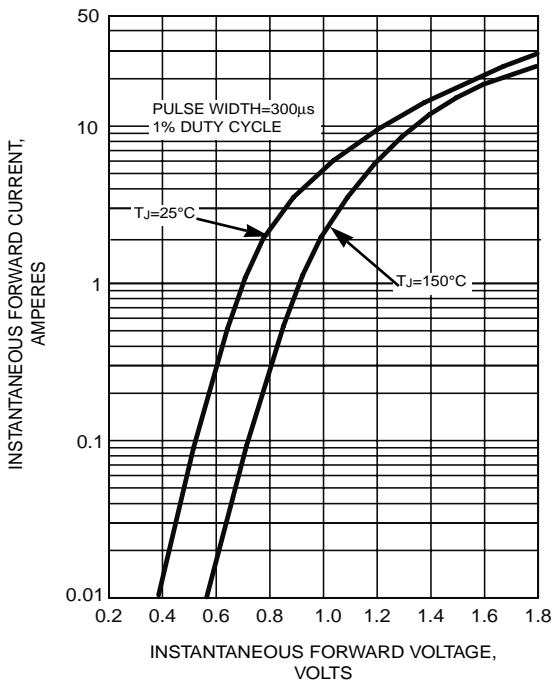


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

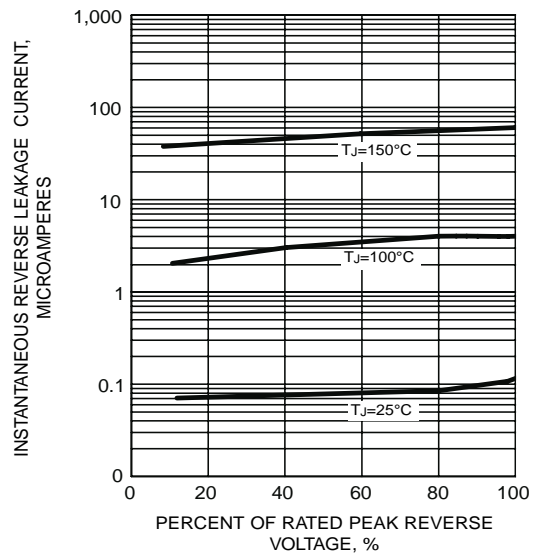


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

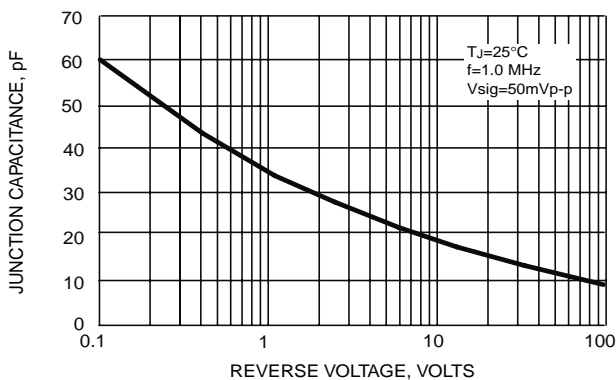


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

