

## GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 1250 to 1800 Volts

Forward Current - 1.0Ampere

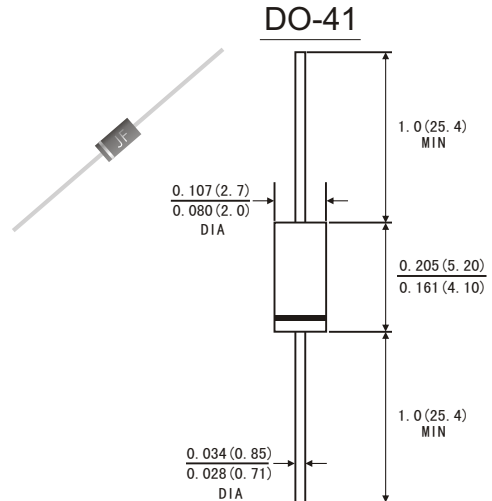


### FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- Low forward voltage drop
- High forward surge current capability
- High current capability
- High reliability
- High temperature soldering guaranteed: 260°C / 10 seconds at terminals  
Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

- *Case:* JEDEC DO-41 molded plastic body
- *Terminals:* Lead solderable per MIL-STD-750, method 2026
- *Polarity:* Color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.012ounce, 0.33 gram



Dimensions in inches and (millimeters)

### 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, derate by 20%.)

	Symbols	BY127	BY133	EM513	EM516	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1250	1300	1600	1800	Volts
Maximum RMS Voltage	$V_{RMS}$	875	910	1100	1260	Volts
Maximum DC Blocking Voltage	$V_{DC}$	1250	1300	1600	1800	Volts
Maximum average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0				Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method))	$I_{FSM}$	30.0				Amps
Maximum Instantaneous Forward Voltage @ 1.0 A	$V_F$	1.1				Volts
Maximum Reverse current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0				$\mu\text{A}$
		200.0				
Maximum Full Load Reverse Current, Full Cycle Average .375" (9.5mm) Lead Length @ $T_A=75^\circ\text{C}$	$I_R$	30.0				$\mu\text{A}$
Typical Thermal resistance (Note 2)	$R_{\theta JA}$	50.0				$^\circ\text{C/W}$
Typical Junction Capacitance (Note 1)	$C_J$	15.0				pF
Operating and Storage temperature Range	$T_J$ $T_{STG}$	-65 to +175				$^\circ\text{C}$

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

# RATINGS AND CHARACTERISTIC CURVES BY127 THRU EM516

FIG.1-FORWARD CURRENT DERATING CURVE

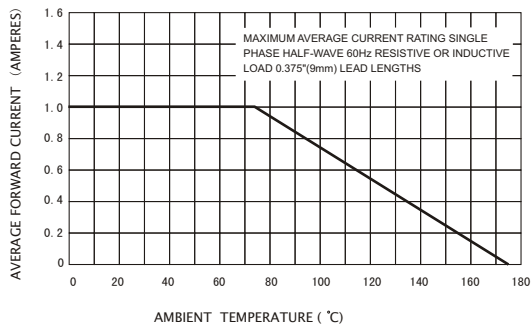


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

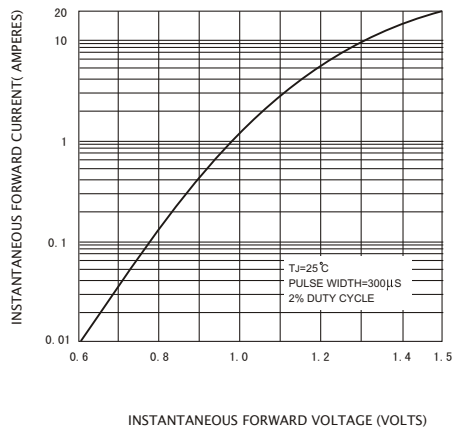


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

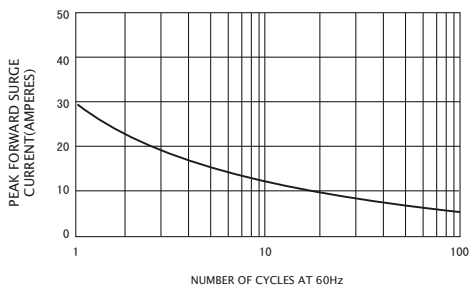


FIG.4-TYPICAL REVERSE CHARACTERISTICS

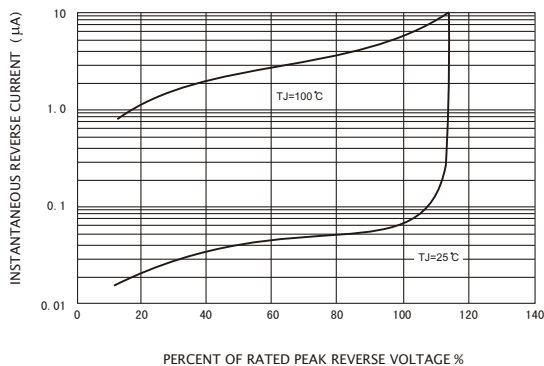


FIG.5-TYPICAL JUNCTION CAPACITANCE

