



GENERAL PURPOSE PLASTIC RECTIFIER

BY127,BY133,EM513,EM516

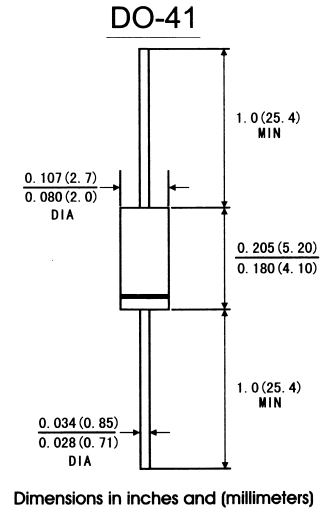
Reverse Voltage - 1250 to 1800 Volts
Forward Current - 1.0Ampere

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

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:** 0.012 ounce, 0.33 gram



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 repetitive peak reverse voltage	V _{RRM}	1250	1300	1600	1800	Volts
Maximum RMS voltage	V _{RMS}	875	930	1120	1270	Volts
Maximum DC blocking voltage	V _{DC}	1250	1300	1600	1800	Volts
Macimum average forward rectified current 0.375"(9.5mm)lead length at T _A =75°C	I _(AV)	1.0				Amp
Peak forward surge current 8.3ms sing-wave superimposed on rated load (JEDEC method)T _A =75°C	I _{FSM}	30.0				Amps
Maximum instantaneous forward voltage at 1.0 A	V _F	1.1				Volts
Maximum reverse current at rated DC blocking voltage	TA=25°C	5.0				μ A
	TA=100°C	200.0				
Typeical thermal resistance(Note 2)	R θ _{JA}	50.0				°C/W
	R θ _{JL}	25.0				
Typical junction Capacitance(Note 1)	C _J	15.0				pF
Operating and storage temperature range	T _J	-50 to +150				°C
	T _{STG}					

- Notes:** 1. Measured at 1MHz and applied reverse voltage of 4.0V DC
2. Thermal resistance from junction to ambient and from junction lead at 0.375"(9.5mm)lead length, P.C.B. Mounted



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RATINGS AND CHARACTERISTIC CURVES BY127,BY133,EM513,EM516

FIG.1-FORWARD CURRENT DERATING CURVE

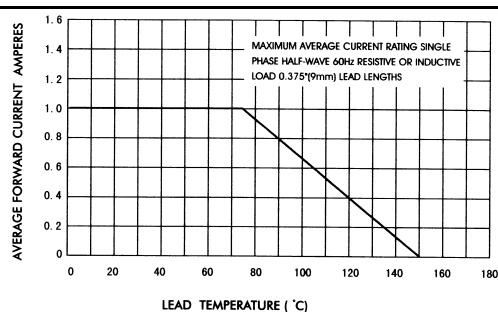


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

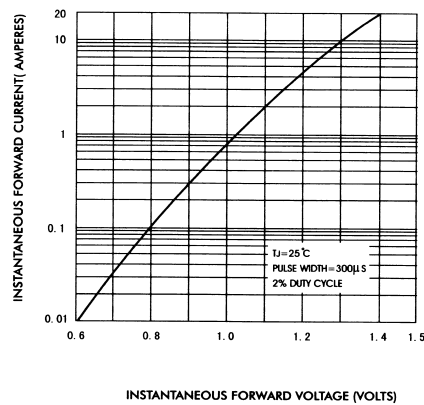


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

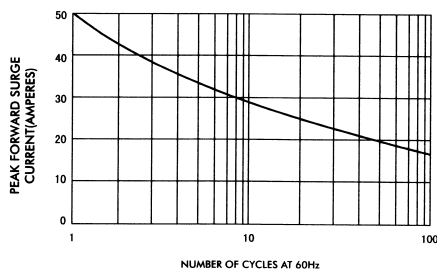


FIG.4-TYPICAL REVERSE CHARACTERISTICS

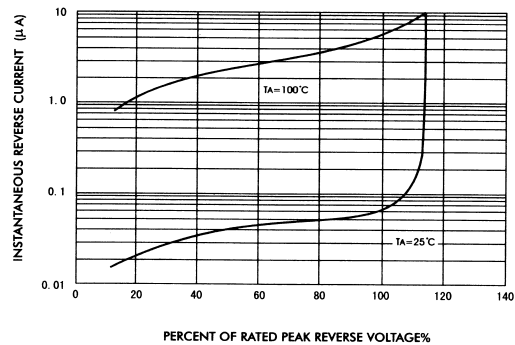


FIG.5-TYPICAL JUNCTION CAPACITANCE

