BY127,BY133,EM513,EM516

GENERAL PURPOSE PLASTIC RECTIFIER

FEATURES

. The plastic package carries Underwrites Laboratory Flammability Classification 94V-0

. Construction utilizes void-free molded plastic technique

. Low reverse leakage

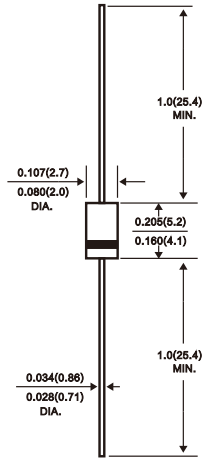
. Low forward voltage drop

. High forward surge current capability

. High current capability

. High reliability

DO-41(DO-204AL)



Dimensions in inches and (millimeters)

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℃ 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℃		$I_{(AV)}$	1.0				Amp
Peak forward surge current 8.3ms sing-wave superimposed on rated load (JEDEC method)T_A=75℃		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℃	I_R	5.0				μA
	TA=100℃		200.0				
Typeical thermal resistance(Note 2)		$R\theta_{JA}$	50.0				℃/W
		$R\theta_{JL}$	25.0				
Typical junction Capacitance(Note 1)		C_J	15.0				pF
Operating and storage temperature range		T_J T_{STG}	-50 to +150				℃

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

2.Thermal resistance from juntion to ambient and from junction lead at 0.375"(9.5mm)lead length, P.C.B. Mounted

FLG.1-FORWARD CURRENT DERATING CURVE

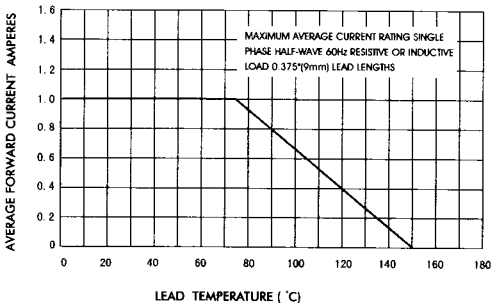


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

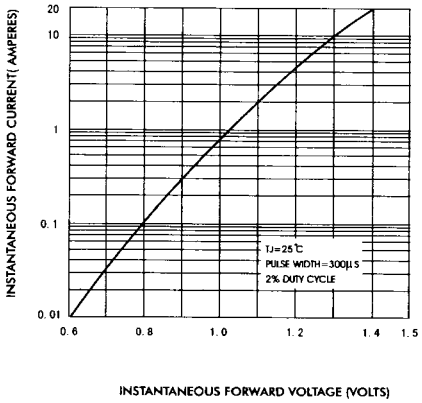


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

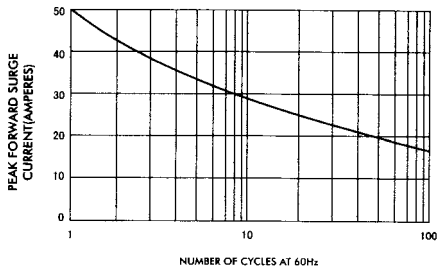


FIG.4-TYPICAL REVERSE CHARACTERISTICS

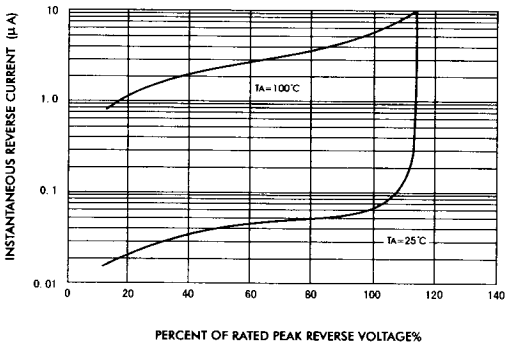


FIG.5-TYPICAL JUNCTION CAPACITANCE