



PINGWEI ENTERPRISE

BY133 THRU EM520

1.0AMP. HIGH VOLTAGE SILICON RECTIFIER

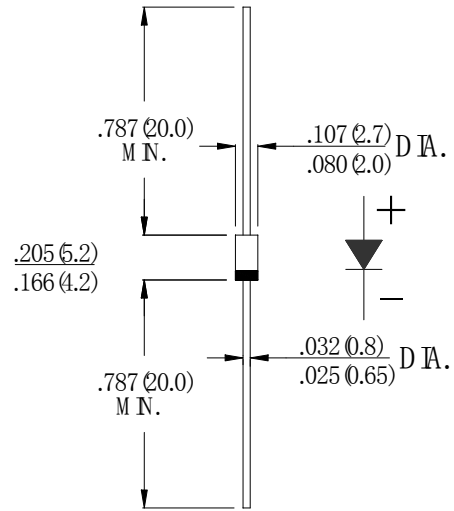
FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High voltage
- . High temperature soldering guaranteed
260°C /10sec/ 0.375" lead length at 5 lbs tension

MECHANICAL DATA

- . Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Mounting position: any

DO-41



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 current by 20%

Type Number	SYMBOL	BY133	EM513	EM516	EM520	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1300	1600	1800	2000	V
Maximum RMS Voltage	V_{RMS}	910	1120	1260	1400	V
Maximum DC blocking Voltage	V_{DC}	1300	1600	1800	2000	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30				A
Maximum Instantaneous forward Voltage at 1.0A DC	V_F	1.1				V
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				μA
		500				
Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at $T_L = 75^\circ\text{C}$		30				
Typical Junction Capacitance (Note1)	C_J	15				pF
Typical Thermal Resistance (Note 2)	$R_{(JA)}$	75				$^\circ\text{C/W}$
Storage Temperature Range	T_{STG}	-55 to +150				$^\circ\text{C}$
Operation Temperature Range	T_J	-55 to +150				$^\circ\text{C}$

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, vertical P.C. Board Mounted.