



BY127M, BY133, EM513

PLASTIC SILICON RECTIFIERS

VOLTAGE 1250 to 1600 Volts **CURRENT** 1.0 Ampere

DO-41

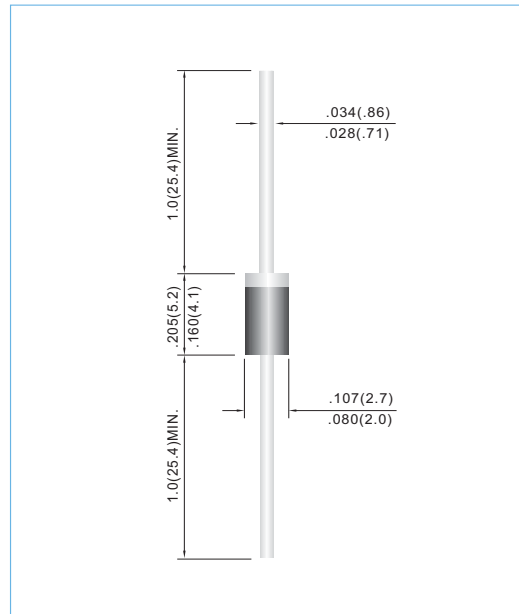
Unit: inch(mm)

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Exceeds environmental standards of MIL-S-19500/228
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: DO-41 Molded plastic
- Epoxy: UL 94V-O rate flame retardant.
- Lead: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounces, 0.30 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BY127M	BY133	EM513	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1250	1300	1600	V
Maximum RMS Voltage	V_{RMS}	875	910	1120	V
Maximum DC Blocking Voltage	V_{DC}	1250	1300	1600	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30			A
Maximum Forward Voltage at 1.0A	V_F	1.1			V
Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	I_R	5.0 500			μA
Typical Junction capacitance (Note 1)	C_J	15			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	50 25			$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150			$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient and from junction to lead at 0.375" (9.5mm) lead length P.C.B. mounted.



BY127M, BY133, EM513

RATING AND CHARACTERISTIC CURVES

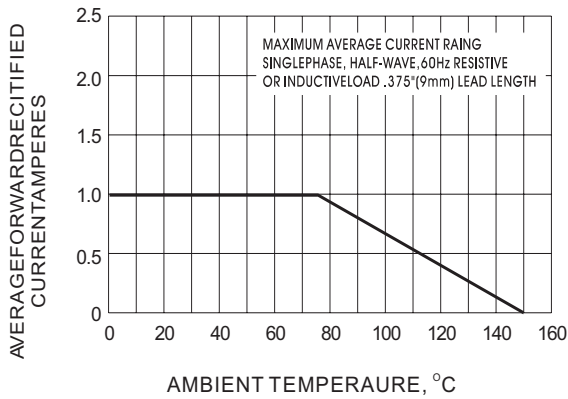


Fig.1-FORWARD CURRENT DERATING CURVE

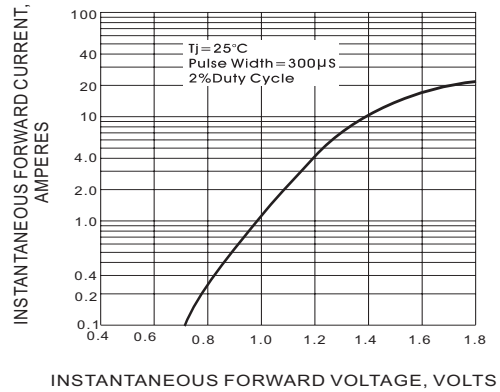


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

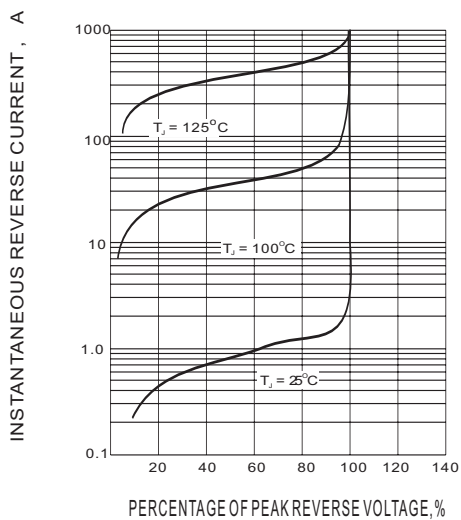


Fig.3-TYPICAL REVERSE CHARACTERISTIC

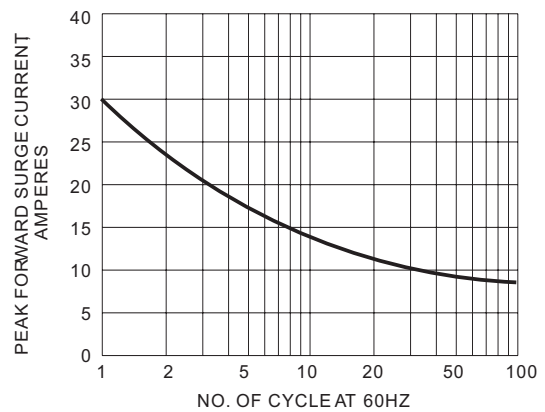


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

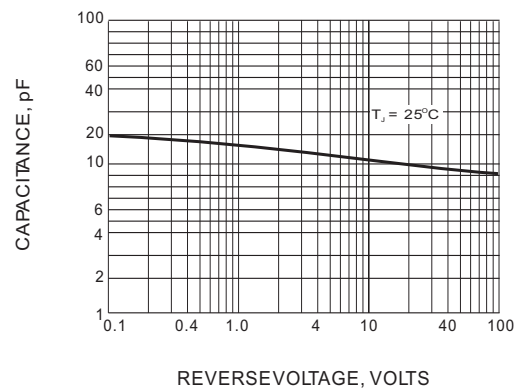


Fig.5-TYPICAL JUNCTION CAPACITANCE



BY127M,BY133,EM513

Part No_packing code_Version

- EM513_AY_00001
- EM513_AY_10001
- EM513_B0_00001
- EM513_B0_10001
- EM513_R2_00001
- EM513_R2_10001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



BY127M,BY133,EM513

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.