



## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**D10PS20--D10PS100**

### FEATURES

- Super long operating life
- Plastic package has Underwriters Laboratory

Flammability Classification 94V-0



Lead-free

### MECHANICAL DATA

- Case: TO-277B molded plastic body
- Mounting position: ANY

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	D10 PS20	D10 PS30	D10 PS40	D10 PS45	D10 PS50	D10 PS60	D10 PS90	D10 PS100	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	45	50	60	90	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	31.5	35	42	63	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	45	50	60	90	100	V
Maximum average forward rectified current at $T_L=90^{\circ}\text{C}$	$I_{F(AV)}$	10								A
Peak forward surge current 8.3ms single half sine -wave	$I_{FSM}$	250								A

### Thermal Characteristics

Characteristic	Symbol	D10 PS20	D10 PS30	D10 PS40	D10 PS45	D10 PS50	D10 PS60	D10 PS90	D10 PS100	UNITS
Operating temperature range	T <sub>J</sub>	- 55 ---- +125						- 55 ---- +150		°C
Storage temperature range	T <sub>STG</sub>	- 55 ---- +150								°C

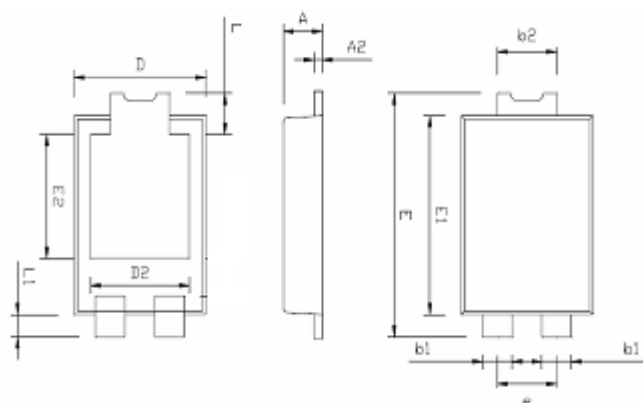
### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	D10 PS20	D10 PS30	D10 PS40	D10 PS45	D10 PS50	D10 PS60	D10 PS90	D10 PS100	UNITS
Maximum instantaneous forward voltage at I <sub>FM</sub> =10.0A	V <sub>F</sub>	0.55				0.70		0.85		V
Maximum DC reverse current T <sub>J</sub> =25°C at rated DC blocking voltage T <sub>J</sub> =100°C	I <sub>R</sub>					0.2 20				m A

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**PACKAGE OUTLINE DIMENSIONS**



TO-277B		
Dim	Min	Max
A	1.00	1.30
A2	0.15	0.43
b1	0.75	1.05
b2	1.65	1.95
D	3.75	4.30
D2	2.80	3.20
E	6.35	6.70
e	1.65	1.95
E1	5.25	5.50
E2	3.05	3.55
L	0.85	1.30
L1	0.45	0.75
All Dimensions in mm		

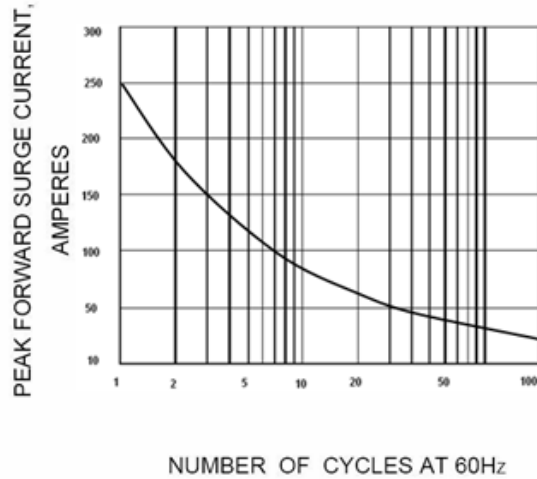
**PACKAGE INFORMATION**

Device	Package	Shipping
D10PS20-D10PS100	TO-277B	4000/Tape&Reel

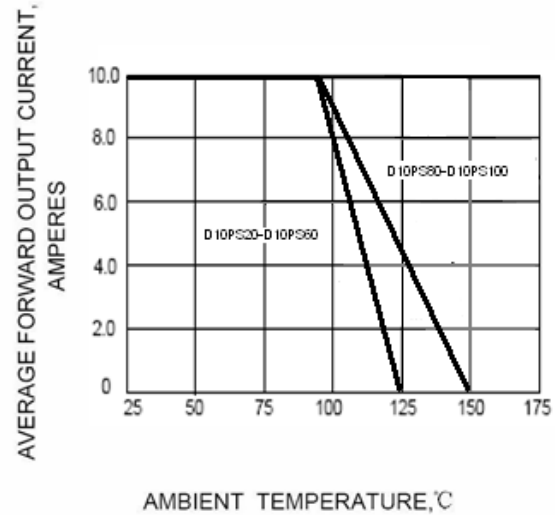
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### *D10PS20--D10PS100*

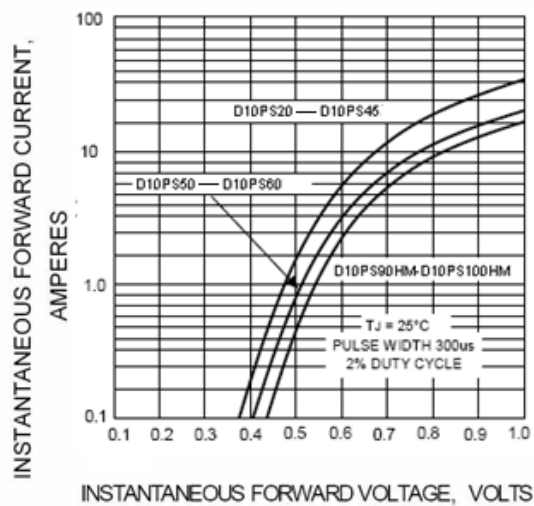
**FIG.1 – PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

