RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

ERS2004M THRU ERS2007M

GLASS PASSIVATED SUPER FAST SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE RANGE 200 to 600 Volts CURRENT 20 Amperes

FEATURES

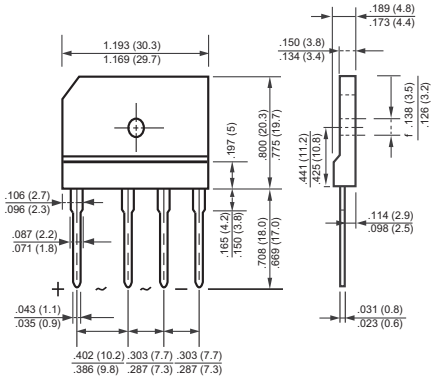
* Low leakage
* Low forward voltage
* Surge overload rating : 250 amperes peak
* Mounting position: Any
* Ideal for printed circuit boards
* High forward surge current capability

MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O
* UL list the recognized component directory,file #E94233



RS-20M



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM RATINGS• (@ T_A=25 °C unless otherwise noted)

RATINGS	SYMBOL	ERS2004M	ERS2006M	ERS2007M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	200	400	600	Volts
Maximum Average Forward Rectified Current at T_C = 90°C	I_O	20			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250			Amps
Typical Current Squared Time	I^2T	260			A^2S
Insulation voltage	Viso	3000			Volts
Typical Thermal Resistance (Note 1)	$R_{\Theta JC}$	0.8			°C/W
TTypical Junction Capacitance(Note 2)	C_J	60			pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150			°C

ELECTRICAL CHARACTERISTICS• (@T_A=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	ERS2004M	ERS2006M	ERS2007M	UNITS
Maximum Instantaneous Forward Voltage at 10A DC		V_F	0.95	1.3	1.7	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	10			uAmps
	@T_A = 150°C		1.0			mAmps
Maximum Reverse Recovery Time (Note 3)		Trr	35			nS

NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.
2.Measured at 1 MHZ and applied reverse voltage of 4.0 VDC.
3.Reverse Recovery Test Conditions：IF=.5A，IR=1A，IRR=.25A.

2018-11
REV:O

RATING AND CHARACTERISTICS CURVES (ERS2004M THRU ERS2007M)

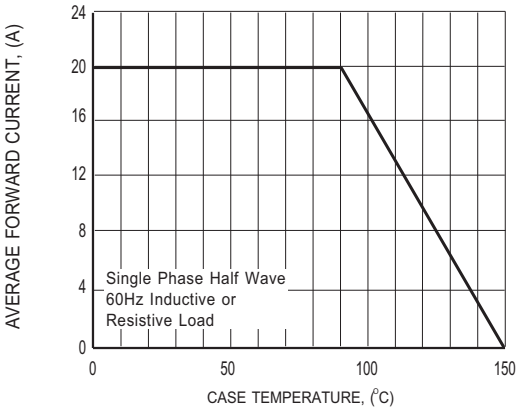


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

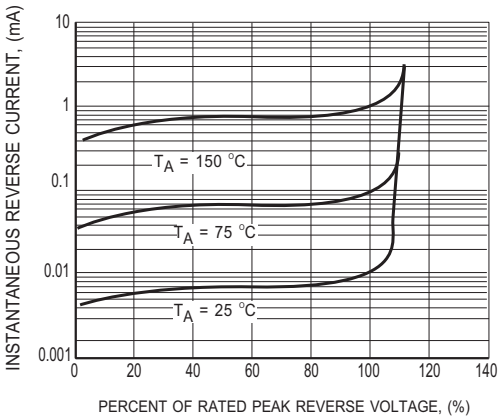


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

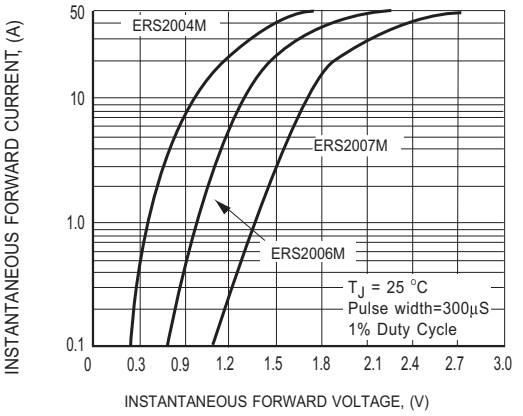


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

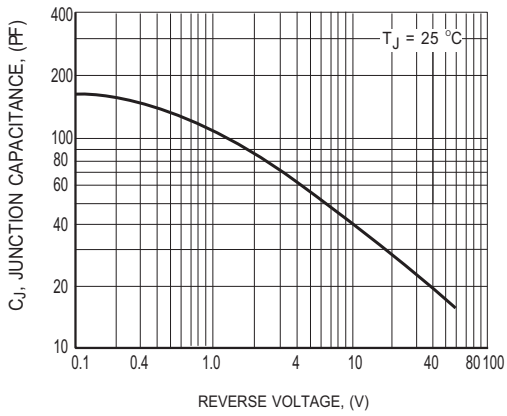


FIG.4 TYPICAL JUNCTION CAPACITANCE

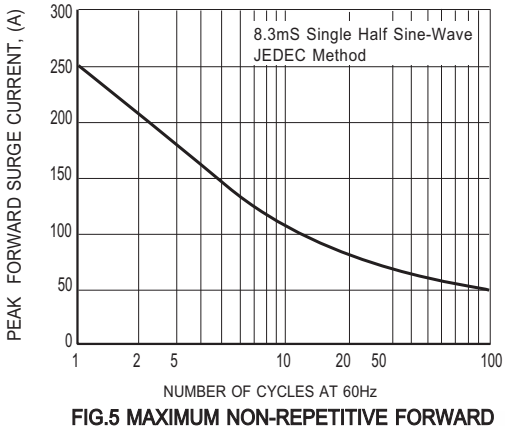
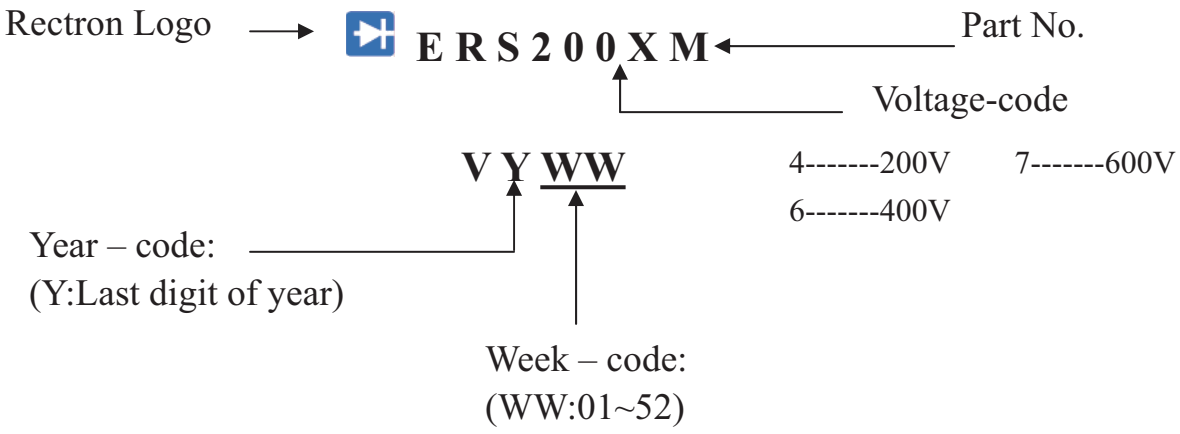


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
RS-20M	-B	300	230*190*46	410*243*157	1,800	13.37

TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
RS-20M	-C	600	490*135*110	510*293*131	1,200	13.12

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