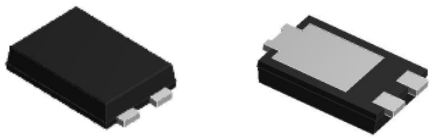
CURRENT 20 Ampere
VOLTAGE RANG 45 to 100 Volts

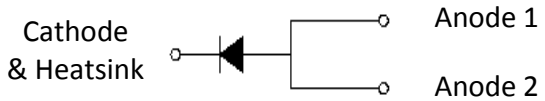
ER20V45GY THRU ER20V100GY

FEATURE

. For surface mounted application
. High current capability
. Low forward voltage drop
. Low power loss, high efficiency
. High surge current capability
. High temperature soldering guaranteed:
260℃/10 seconds at terminals.

(TO-277)





MECHANICAL DATA

. Terminal: Solder plated
. Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy

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 current by 20%

Type Number		SYMBOL	20V45	20V60	20V80	20V100	units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	45	60	80	100	V
Maximum RMS Voltage		V_{RMS}	31.5	42	56	70	V
Maximum DC blocking Voltage		V_{DC}	45	60	80	100	V
Average Forward Rectified Output Current		$I_{F(AV)}$	20.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	300.0				A
Maximum Instantaneous	@T_A=25℃	V_F	0.32	0.37	0.42	0.45	
Forward Voltage at 4.0A DC	@T_A=100℃		0.24	0.29	0.34	0.38	V
Maximum Instantaneous	@T_A=25℃		0.45	0.51	0.58	0.65	
Forward Voltage at 20.0A DC	@T_A=100℃		0.39	0.45	0.52	0.59	
Maximum DC Reverse Current	@T_A=25℃	I_R	0.02	0.03	0.05	0.05	mA
at rated DC blocking voltage	@T_A=100℃		5.0	5.0	10.0	10.0	
Typical Junction Capacitance (Note1)		C_J	600				pF
Typical Thermal Resistance (Note2)		$R_{(JA)}$	31				℃/W
Storage Temperature		T_{STG}	-55 to +150				°C
Operating Junction Temperature		T_J	-55 to +150				°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Polymide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.

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RATING AND CHRACTERISTIC CURVES

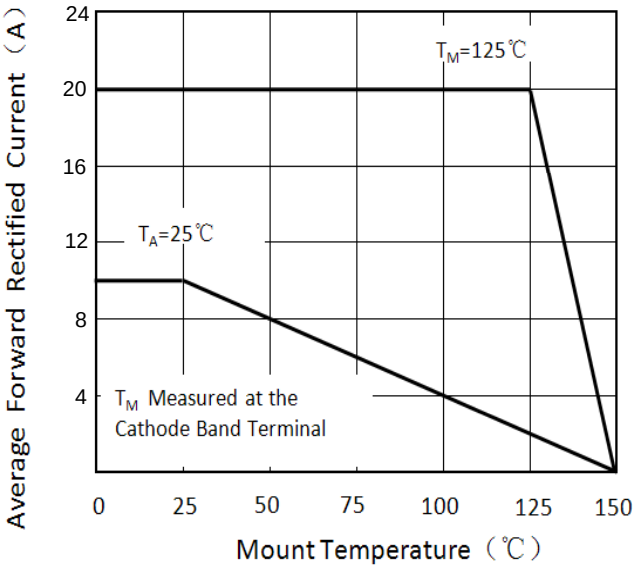

Figure 1.Forward Current Derating Curve

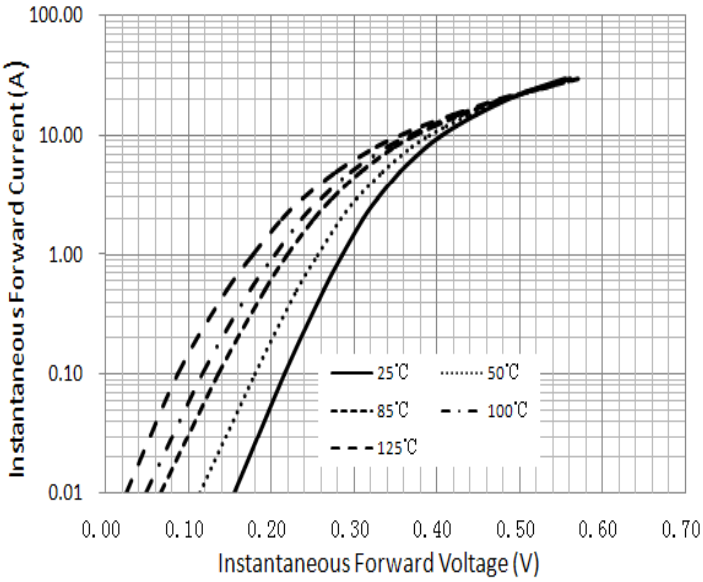

Figure 2. Typical Instantaneous Forward Characteristics

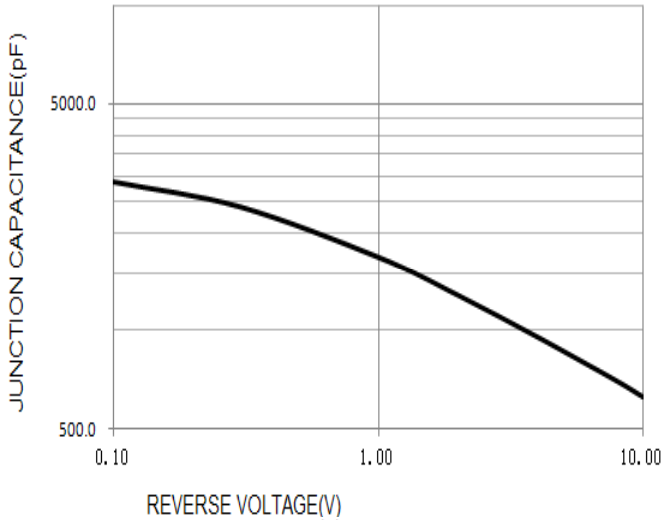

Figure 3. Typical Junction Capacitance

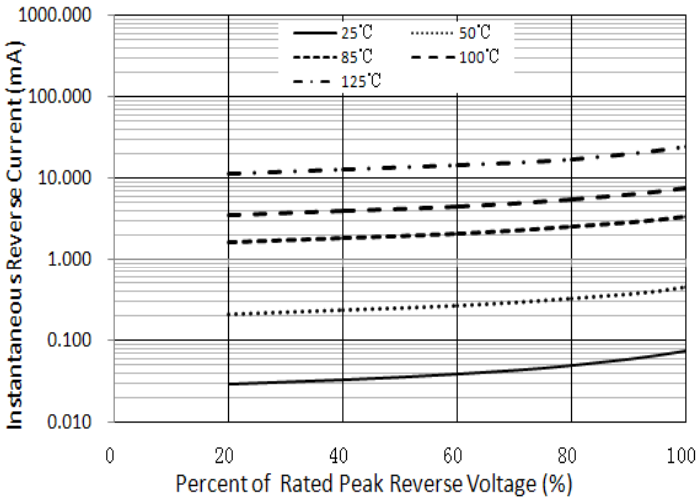

Figure 4. Typical Reverse Characteristics

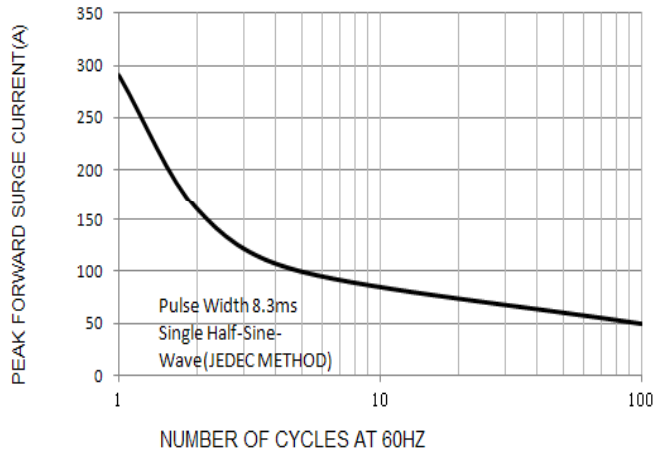

Figure 5.Maximum Non-Repetitive Peak Forward Surge Current

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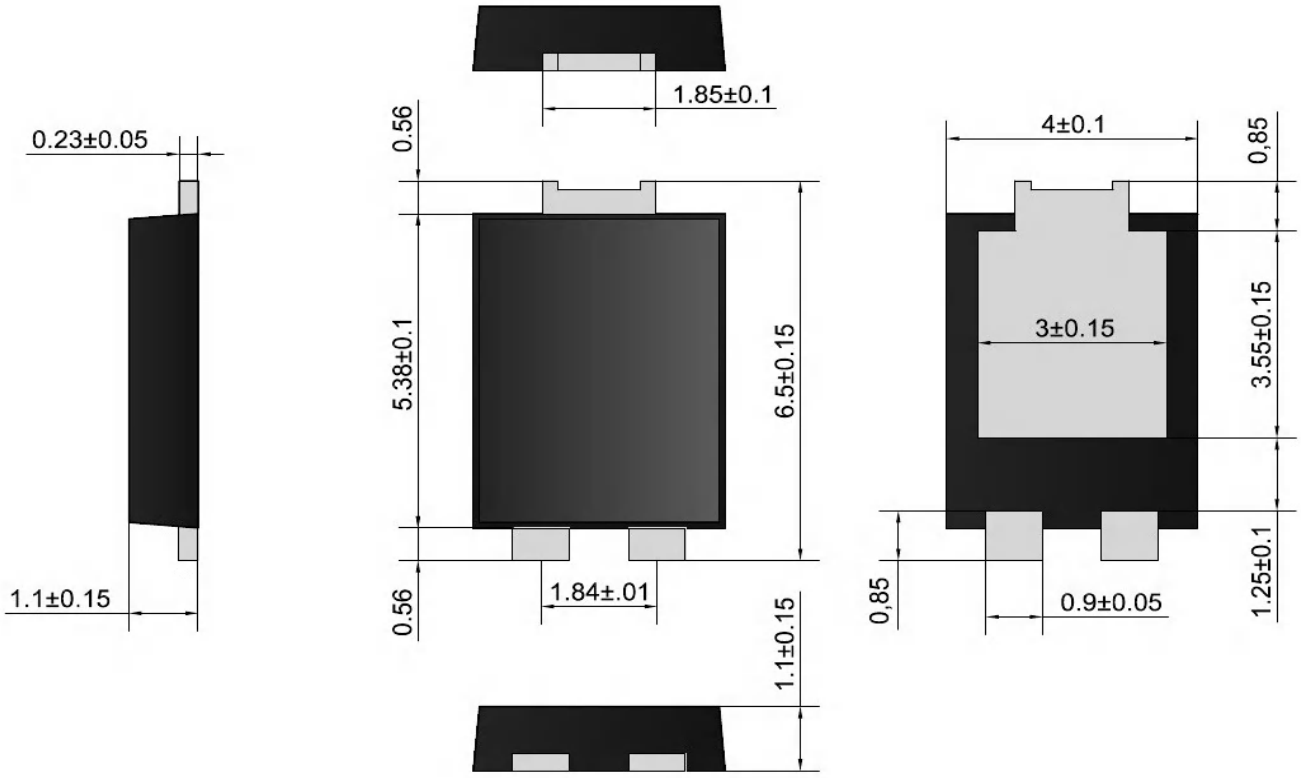
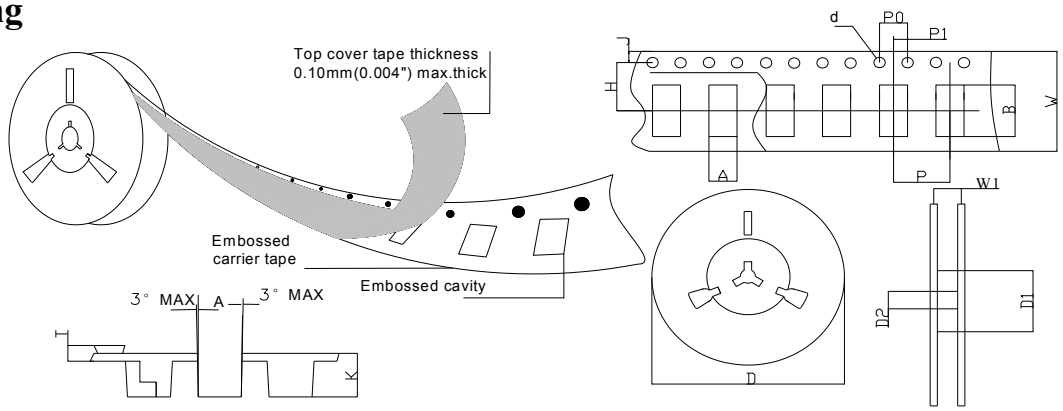
PACKAGE OUTLINE DIMENSIONS



Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	PS-277B	ITEM	SYM BOL	PS-277B
Carrier width	A	4.45(0.175)Max	Carrier depth	K	1.60(0.063)Typ
Carrier length	B	7.0(0.276)Max	Punch hole pitch	P	8.00(0.315)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	74.0(2.913)Min	Overall tape thickness	T	0.25(0.010)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	16.0(0.630)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	16.5(0.650)Min
Punch hole position	H	7.50(0.295)Typ			