



Low VF Schottky Barrier Rectifier
Reverse Voltage 45 Volts, Forward Current 10 Amperes

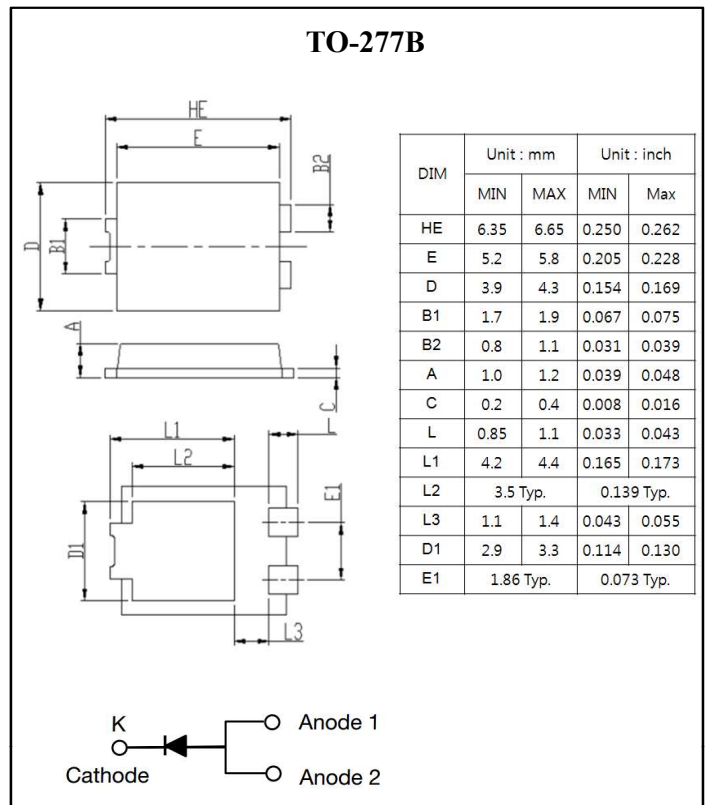
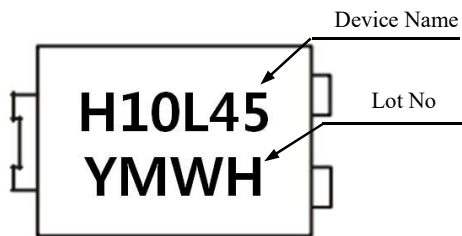
Features

- High current capability, low forward voltage
- High forward surge capability
- Low power loss, high efficiency
- Excellent high temperature stability
- RoHS compliant, and Halogen free

Mechanical Data

- Case: TO-277B small outline plastic package
- Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- Molding Compound Flammability Rating:UL94-0
- High temperature soldering guaranteed:260°C /10second
- Packed with FRP substrate and epoxy underfilled

Marking



Maximum Ratings

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	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10	A
Peak Forward Surge Current, 50Hz Half Sine-wave	I_{FSM}	250	A
Operating Junction and Storage Temperature Range	T_J & T_{STG}	-40 to +150	°C

Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage Drop	V_F	-	0.34	-	V	$I_F=3A, T_J=25^\circ\text{C}$
		-	0.38	0.42	V	$I_F=5A, T_J=25^\circ\text{C}$
		-	0.43	0.47	V	$I_F=10A, T_J=25^\circ\text{C}$
		-	0.27	-	V	$I_F=3A, T_J=125^\circ\text{C}$
		-	0.32	-	V	$I_F=5A, T_J=125^\circ\text{C}$
		-	0.41	0.42	V	$I_F=10A, T_J=125^\circ\text{C}$
Leakage Current	I_R	-	-	0.2	mA	$V_R=45V, T_J=25^\circ\text{C}$
		-	8.5	10	mA	$V_R=45V, T_J=125^\circ\text{C}$
Junction Capacitance	C_J	-	600	-	pF	$f=1\text{MHz}, V_R=4V$
Thermal Resistance (Note 1)	$R_{th(j-a)}$	-	31	-	°C/W	

Note 1 : Polyimide PCB. 2oz. copper. Cathode pad dimensions 18.8×14.4mm. Anode pad dimensions 5.6×14.4mm



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

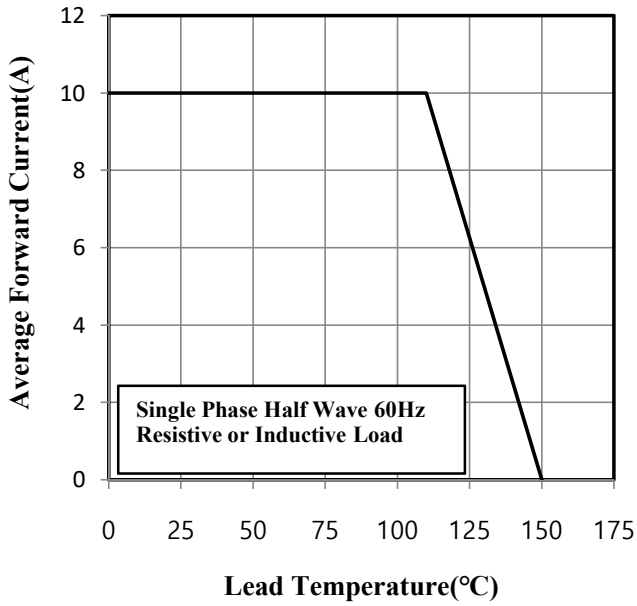


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

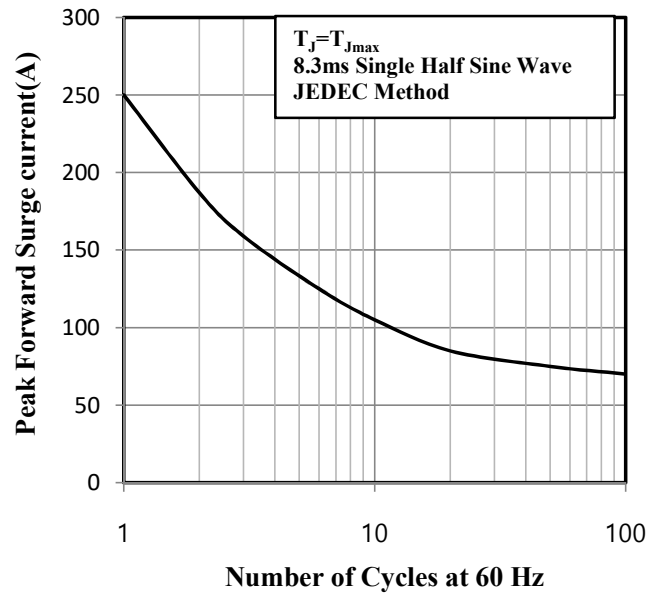


Fig.3 Typical Instantaneous Forward Characteristics

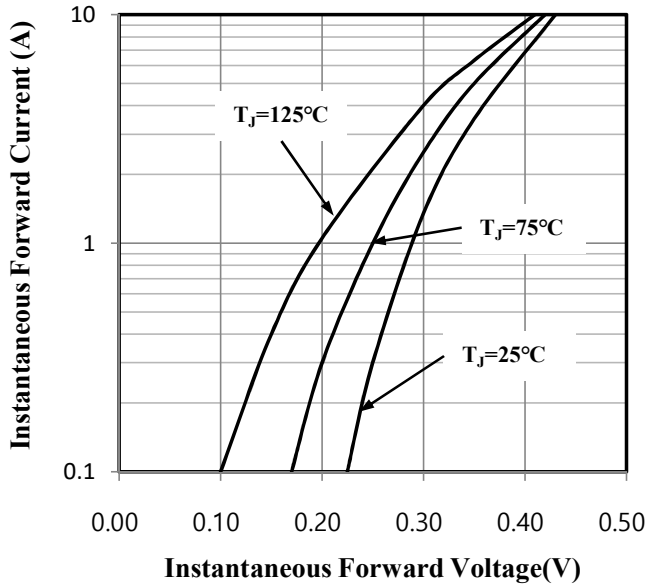


Fig.4 Typical Reverse Characteristics

