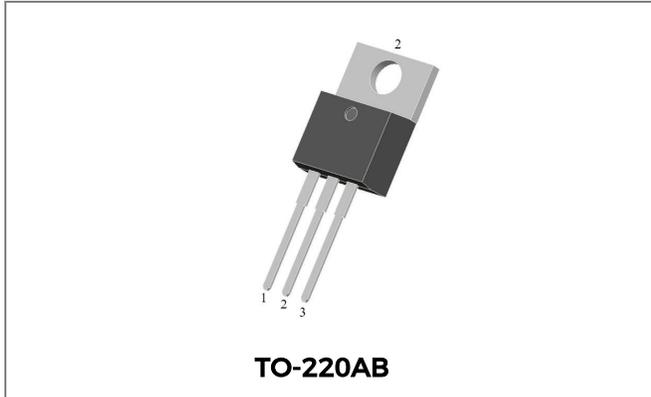


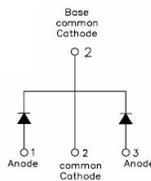
ST40L60C SCHOTTKY RECTIFIER



Features

- 150 °C T_J operation
- Ultralow forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Terminals finish: 100% Pure Tin
- Trench MOS Schottky technology
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Maximum Ratings(limiting values, at 25 °C unless otherwise specified)

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	60	V
Average Rectified Forward Current	I _{F(AV)}	T _c =132°C, In DC	20(Per Leg) 40(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I _{FSM}	8.3ms, Half Sine pulse	240	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (Per Leg)*	V _{F1}	@ 10A, Pulse, T _J = 25 °C @ 20A, Pulse, T _J = 25 °C	0.48 0.55	- 0.60	V
	V _{F2}	@ 10A, Pulse, T _J = 125 °C @ 20A, Pulse, T _J = 125 °C	0.40 0.52	- 0.55	V
Reverse Current(Per Leg)*	I _{R1}	@V _R = rated V _R , T _J = 25°C	0.008	6	mA
	I _{R2}	@V _R = rated V _R , T _J = 125°C	6	15	mA
Junction Capacitance	C _T	@V _R = 5V, T _C = 25 °C f _{sig} = 1MHz	990	-	pF

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Case(Per Leg)	$R_{\theta\text{JC}}$	DC operation	1.5	$^{\circ}\text{C/W}$
Approximate Weight	wt	-	2	g
Case Style	TO-220AB			

Ratings and Characteristics Curves

Figure1 Typical Forward Characteristics

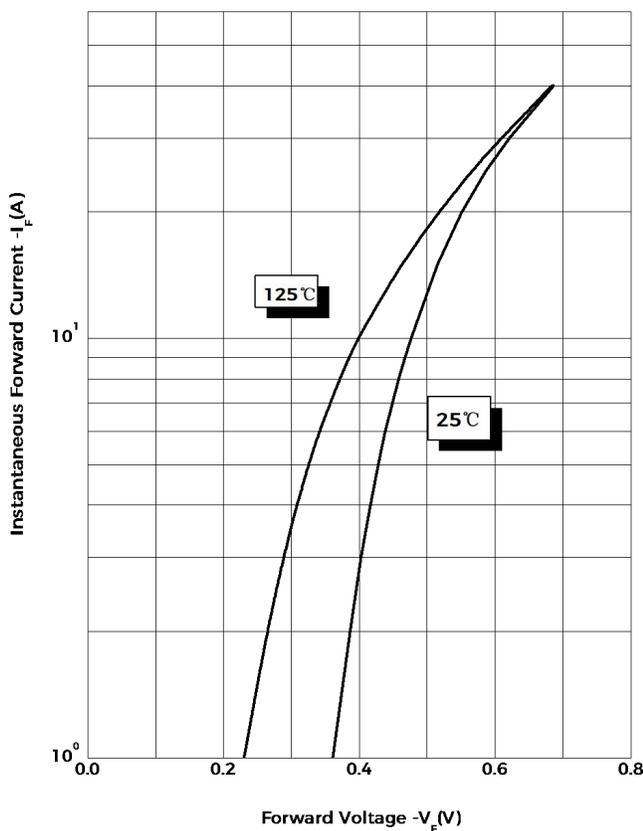


Figure 2 Typical Reverse Characteristics

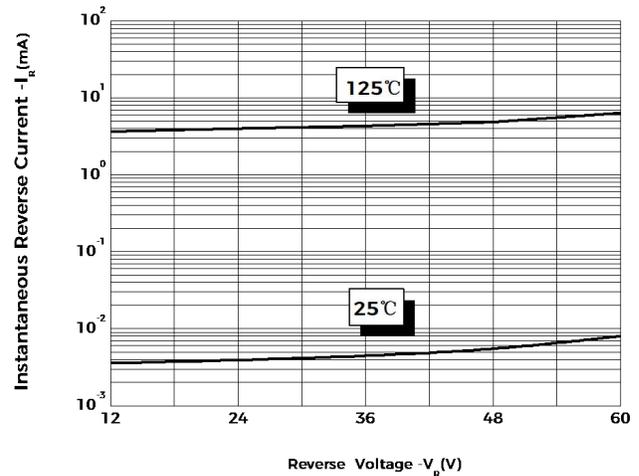
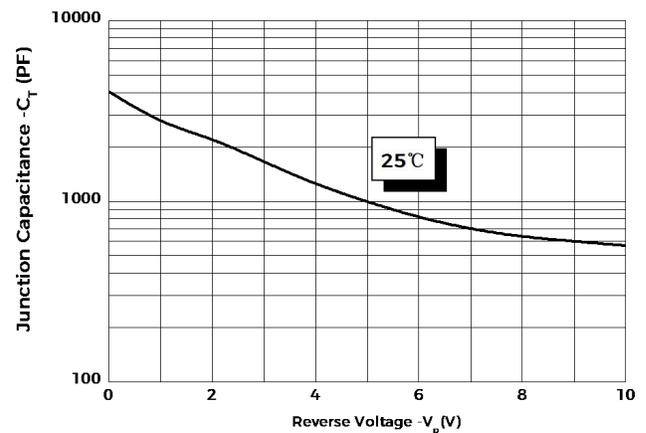
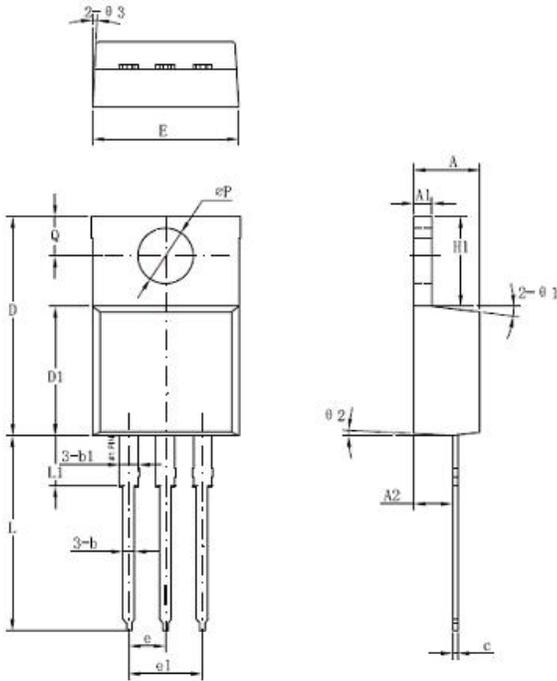


Figure 3 Typical Junction Capacitance



Mechanical Dimensions TO-220AB



Symbol	Dimensions in millimeters		
	Min	Typical	Max
A	3.56	-	4.83
A1	0.51	-	1.4
A2	2.03	-	2.92
b	0.38	-	1.02
b1	1.14	-	1.78
c	0.31	-	0.61
D	14.22	-	16.51
D1	8.38	-	9.42
E	9.65	-	10.67
e	-	2.54	-
e1	-	5.08	-
H1	5.84	-	6.86
L	12.7	-	14.73
L1	-	-	6.35
φP	-	3.56	-
Q	2.54	-	3.43

Marking Diagram

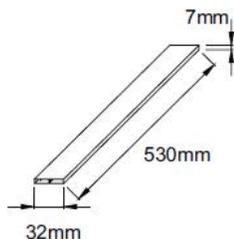


Where XXXXX is YYWWL

- ST = Device Type
- 40 = Forward Current (40A)
- L = L
- 60 = Reverse Voltage (60V)
- C = Configuration
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

Cautions: Molding resin
Epoxy resin UL94V-0

Tube Specification



Ordering Information

Device	Package	Shipping
ST40L60C	TO-220AB (Pb-Free)	50 pcs/ tube

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