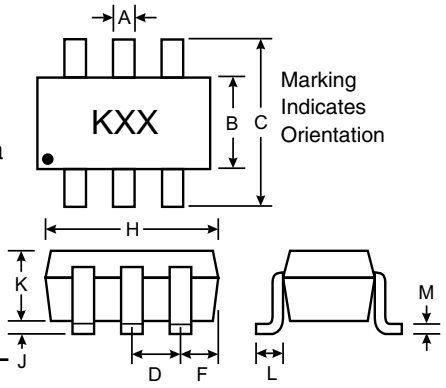
QSBT40

QUAD DATA LINE SCHOTTKY BUS TERMINATOR

NEW PRODUCT

Features

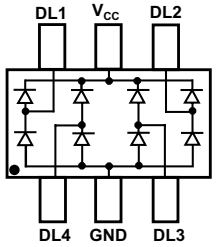
- Low Forward Voltage Drop
- Fast Switching
- Very High Density
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Provide transient protection for high-speed data lines in accordance with:
  IEC61000-4-2 (ESD) 15kV (Air), 8kV (Contact)
  IEC61000-4-4 (EFT) 80A (tp = 5/50 ns)
  IEC61000-4-5 (Lightning) Class 3



SOT-363		
Dim	**Min**	**Max**
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
H	1.80	2.20
J	—	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
All Dimensions in mm		

Mechanical Data

- Case: SOT-363, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.006 grams (approx.)
- Marking Code: KST



Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-Repetitive Peak Forward Surge Current @ t < 1.0s	I_{FSM}	600	mA
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating Temperature Range	T_j	-55 to +125	°C
Storage Temperature Range	T_{STG}	-65 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Typ	Max	Unit	Test Condition
Forward Voltage	V_{FM}	—	280 350 450 550 1000	mV	I_F = 0.1mA, tp < 300µS I_F = 1.0mA, tp < 300µS I_F = 10mA, tp < 300µS I_F = 30mA, tp < 300µS I_F = 100mA, tp < 300µS
Reverse Current	I_{RM}	—	2	µA	V_R = 25V
Junction Capacitance (Note 1)	C_j	10.0	—	pF	V_R = 0, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	5.0	ns	I_F = I_R = 10mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

Notes: 1. At V_R= 0V, DL(X) to V_{CC} or GND.