

Surface Mount Diode Selection Guide

SOT-323 Schottky-Barrier Diodes

Application	Part Number	V _{BR} (V) (min)	V _F (mV) (max)	V _F @ I _F (V @ mA) (max)	C _t (pF) (typ)	R _D (Ω) (typ)	Volt. Sens. (γ) (mV/mW) (typ @ 900 MHz)	R _V (KΩ) (typ)
Best overall general purpose	HSMS-282a	15	340	0.7 @ 30	1.0	12	-	-
Clipping/Clamping	HBAT-540a	30	800	-	3.0	2.4	-	-
High Current Clipping/Clamping	HSMS-270a	15	550	-	6.7	0.65	-	-
Lowest flicker noise	HSMS-281a	20	400	1.0 @ 35	1.2	15	-	-
High V _{BR}	HSMS-280a	70	400	1.0 @ 15	2.0	35	-	-
Zero bias detector	HSMS-285a	-	150	-	0.3	-	40	8
High frequency up to 14 GHz	HSMS-286a	5	250	-	0.3	-	50	5

The "a" in the above part numbers is replaced by a "B" for a single diode configuration a "C" for a series pair, an "E" for a common anode pair, and an "F" for a common cathode pair. Some part numbers are not available in all configurations.

SOT-363 Schottky-Barrier Diodes

Application	Part Number	V _{BR} (V) (min)	V _F (mV) (max)	V _F @ I _F (V @ mA) (max)	C _t (pF) (typ)	R _D (Ω) (typ)	Volt. Sens. (γ) (mV/mW) (typ @ 900 MHz)	R _V (KΩ) (typ)
Best overall general purpose	HSMS-282a	15	340	0.7 @ 30	1.0	12	-	-
Lowest flicker noise	HSMS-281a	20	400	1.0 @ 35	1.2	15	-	-
High V _{BR}	HSMS-280a	70	400	1.0 @ 15	2.0	35	-	-
Zero bias detector	HSMS-285a	-	150	-	0.3	-	40	8
High frequency up to 14 GHz	HSMS-286a	5	250	-	0.3	-	50	5

The "a" in the above part numbers is replaced by a "K" for a high isolation unconnected pair, an "L" for an unconnected trio, an "M" for a common cathode quad, an "N" for a common anode quad, a "P" for a bridge quad, and an "R" for a ring quad. See the following page for configuration diagrams. Some part numbers are not available in all configurations.

SOT-23/-143 Schottky-Barrier Diodes

Many of the above Schottky-barrier diodes are available in SOT-23 and SOT-143 in the following configurations: single diode, series pair, common anode pair, and common cathode pair in SOT-23; unconnected pair, ring quad, bridge quad, and crossover quad in SOT-143.

SOT-323 PIN Diodes

Application	Part Number	C_i (pF) (max/typ)	R_S (Ω) (max)	V_{BR} (V) (min)	T_{rr} (nS) (typ)	Lifetime (nS) (typ)
Low distortion attenuator	HSMP-381a	0.35/0.27	3.0	100	300	1500
Low distortion/ low inductance attenuator	HSMP-481B	0.40/0.35	3.0	100	300	1500
Low inductance limiter	HSMP-482B	1.0/0.75	0.8	35	7	70
Low current switch/attenuator	HSMP-386a	-/0.20	1.5 typ	50	80	500
Low resistance switch	HSMP-389a	0.30/0.20	2.5	50	-	200
Low resistance/ low inductance switch	HSMP-489B	0.38/0.33	2.5	50	-	200

The "a" in the above part numbers is replaced by a "B" for a single diode configuration, a "C" for a series pair, an "E" for a common anode pair, and an "F" for a common cathode pair.

SOT-363 PIN Diodes

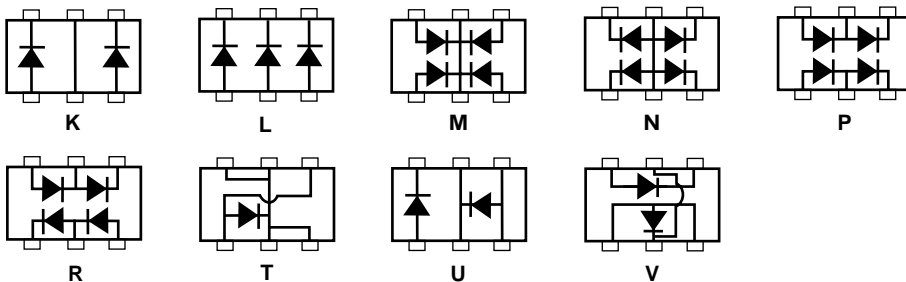
Application	Part Number	C_i (pF) (max/typ)	R_S (Ω) (max)	V_{BR} (V) (min)	T_{rr} (nS) (typ)	Lifetime (nS) (typ)
Low current switch/attenuator	HSMP-386a	-/0.20	1.5 typ	50	80	500
Low resistance switch	HSMP-389a	0.30/0.20	2.5	50	-	200

The "a" in the above part number is replaced by an "L" for an unconnected trio, an "R" for a ring quad, a "T" for a low inductance single, a "U" for a series-shunt pair, and a "V" for a high frequency series-shunt pair. See below for configuration diagrams. Some part numbers are not available in all configurations.

SOT-23/-143 PIN Diodes

Many of the above PIN diodes are also available in SOT-23 and SOT-143 in the following configurations: single diode, dual anode single, dual cathode single, series pair, common anode pair, and common cathode pair in SOT-23; unconnected pair in SOT-143.

SOT-363 Configuration Diagrams



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Obsoletes 5967-6356E

5968-4718E (3/99)