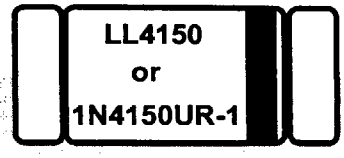
MINI-MELF-SMD Silicon Diode



Applications Switching

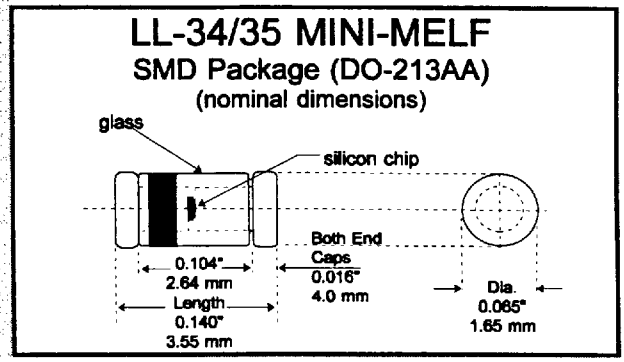
Used in general purpose applications, where a low current controlled forward characteristic and fast switching speed are important.

BKC can produce generic equivalents to JAN/ TX/ TXV and S level per MIL-S-19500/ 437 with internal source control drawings.

Use HR, HRX, HRV or HRS suffixes for cost effective high reliability parts.

Features

- Six sigma quality
- Metallurgically bonded
- BKC's Sigma Bond™ plating for problem free solderability
- Available in DO-35 package with approval to Mil-S-19500 / 437



Maximum Ratings	Symbol	Value	Unit
Peak Inverse Voltage @ 5µA & 0.1µA @ -55 °C	PIV	75 (Min.)	Volts
Average Rectified Current	I_{Avg}	200	mAmps
Continuous Forward Current	I_{Fdc}	400	mAmps
Peak Surge Current (t_{peak} = 1 Sec.)	I_{peak}	0.50	Amp
Power Dissipation $T_{End\ Cap}$ = 50 °C	P_{tot}	500	mWatts
Operating and Storage Temperature Range	$T_{Op\ \&\ St}$	-65 to +175	°C

Electrical Characteristics @ 25 °C	Symbol	Minimum	Maximum	Unit
Forward Voltage Drop @ I_F = 100 µA	V_F	0.49	0.55	Volts
Forward Voltage Drop @ I_F = 1.0 mA	V_F	0.54	0.62	Volts
Forward Voltage Drop @ I_F = 10 mA	V_F	0.66	0.74	Volts
Forward Voltage Drop @ I_F = 50 mA	V_F	0.76	0.86	Volts
Forward Voltage Drop @ I_F = 100 mA	V_F	0.82	0.92	Volts
Forward Voltage Drop @ I_F = 200 mA	V_F	0.87	1.00	Volts
Reverse Leakage Current @ V_R = 50 V	I_R		100	nA
Reverse Leakage Current @ V_R = 50 V	I_R		100 @ 150 °C	µA
Capacitance @ V_R = 0 V, f = 1mHz	C_T		2.5	pF
Reverse Recovery Time (note 1)	t_{rr}		4.0	nSecs

Note 1: Per Method 4031-B with $I_F = I_R$ = 10 mA, R_L = 100 Ohms, C = 3 Pf..

For equivalent MIL devices, use 1N4150UR-1 along with the appropriate HR, HRX, HRV or HRS suffix.

The SMD DO-213AA also comes in a commercial and a military DO-35 leaded version (1N4150).

BKC Semiconductors Inc.

6 Lake St · Lawrence, MA · 01841 · tel: (978) 681-0392 · fax: (978) 681-9135