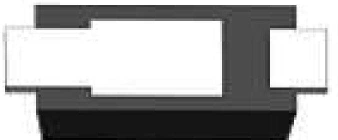
DFLS1150-7

Surface Mount Schottky Barrier Rectifiers

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260℃/10 seconds
- Compliant to RoHS Directive 2011/65/EU
- Compliant to Halogen-free



Mechanical data

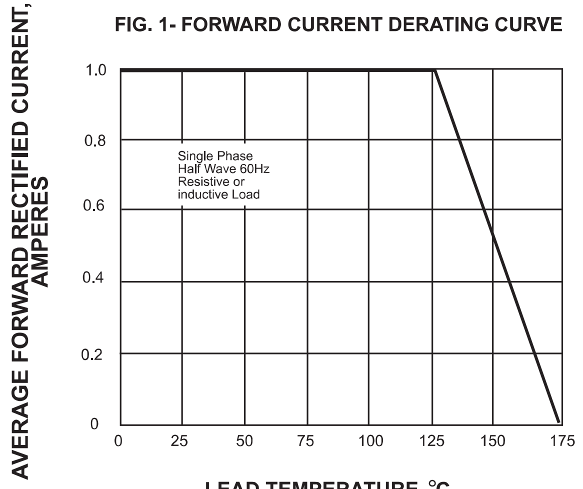
- **Case**: JEDEC PowerDI-123 molded plastic body
- **Terminals**: Plated axial leads, solderable per MIL-STD-750, Method 2026
- **Polarity**: Color band denotes cathode end
- **Mounting Position**: Any

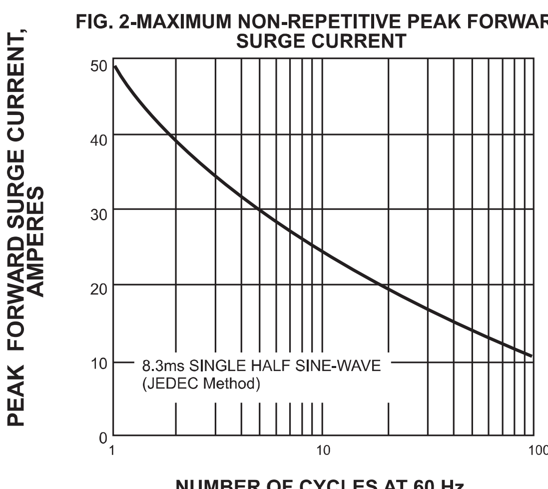
Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

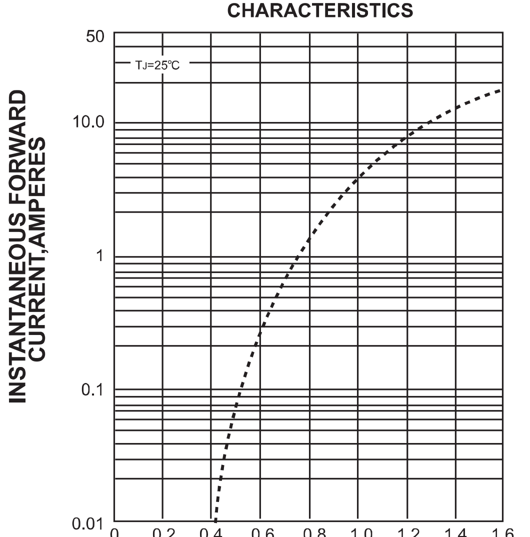
PARAMETER	SYMBOLS	DFLS1150-7	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	106	V
Maximum DC blocking voltage	V_{DC}	150	V
Maximum average forward rectified current at T_L(see fig.1)	$I_{(AV)}$	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50	A
Maximum instantaneous forward voltage at 1.0A	V_F	0.82	V
Maximum instantaneous forward voltage at 2.0A	V_F	0.95	V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage	I_R	5	uA
Typical junction capacitance (NOTE 1)	C_J	30	pF
Typical thermal resistance (NOTE 2)	$R_{θJA}$	85	°C/W
Operating junction temperature range	T_J,	-55 to +175	°C
Storage temperature range	T_{STG}	-55 to +175	°C

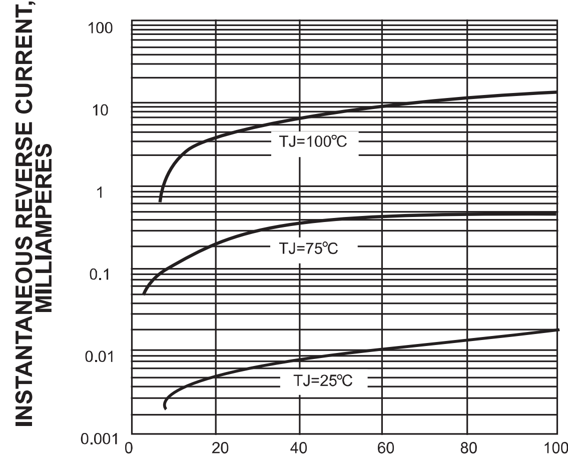
Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 2.0x2.0″(5.0x5.0cm) copper pad areas

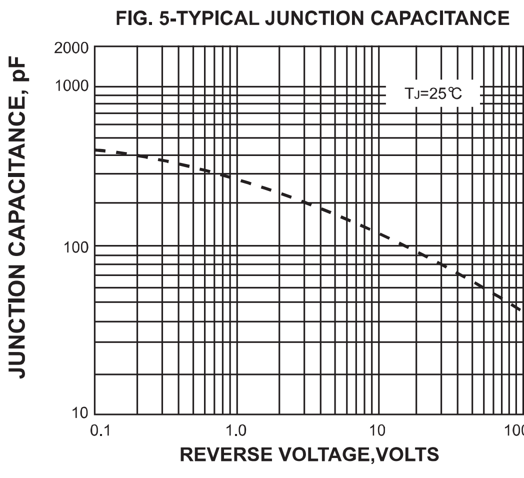
Rating and characteristic curves

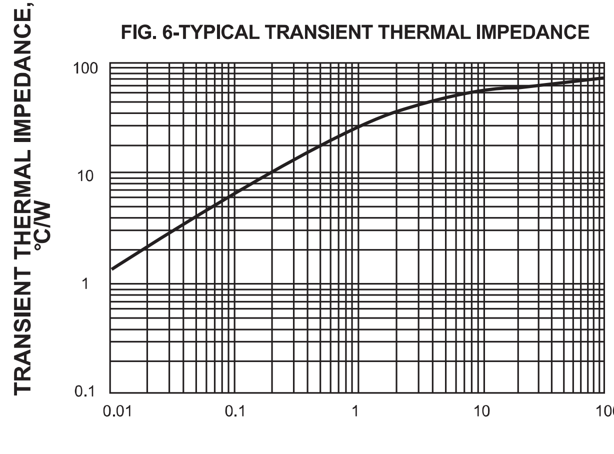












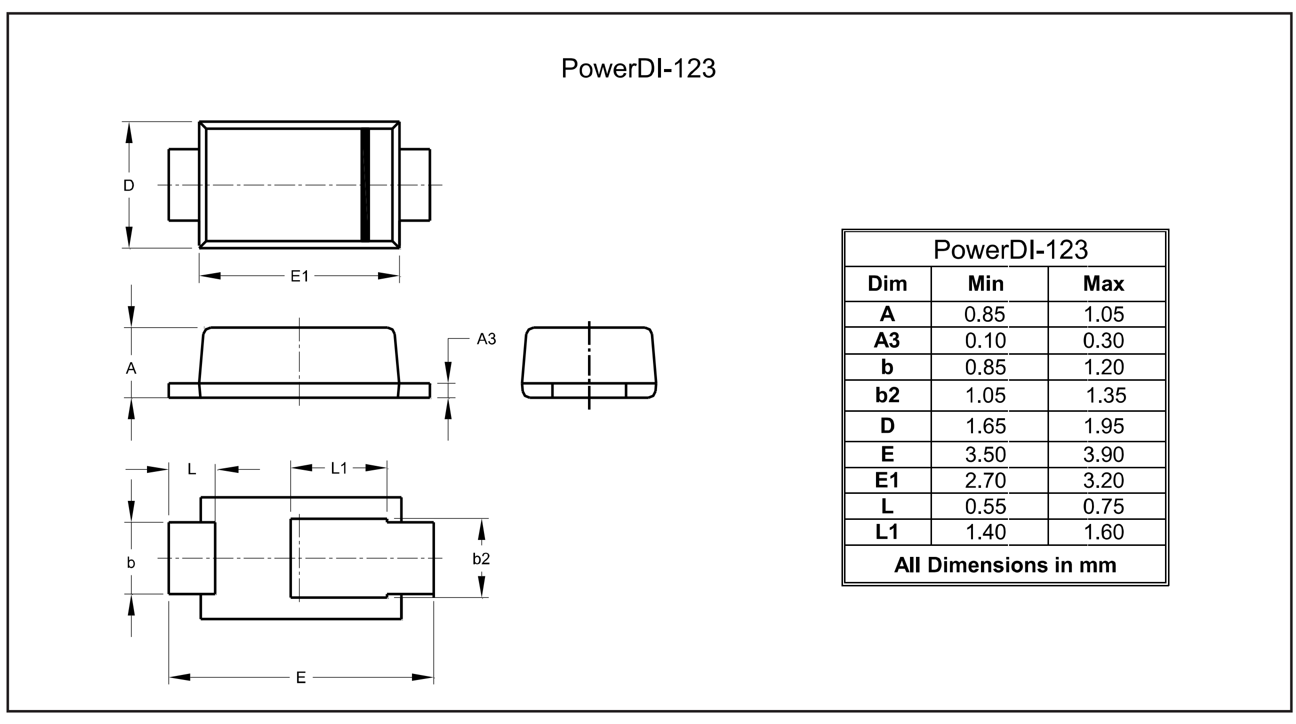
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode	1 2	1 2

Marking

Type number	Marking code
DFLS1150-7	F07

Package outline

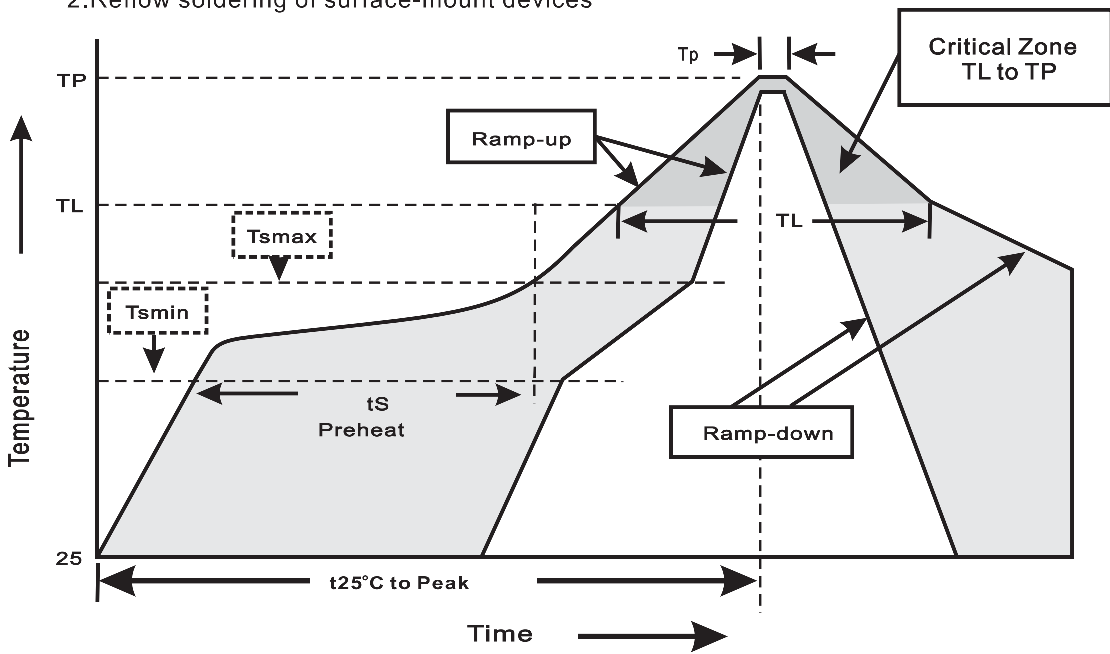


PowerDI-123		
Dim	**Min**	**Max**
A	0.85	1.05
A3	0.10	0.30
b	0.85	1.20
b2	1.05	1.35
D	1.65	1.95
E	3.50	3.90
E1	2.70	3.20
L	0.55	0.75
L1	1.40	1.60
All Dimensions in mm		

Suggested thermal profiles for soldering processes

1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%

2.Reflow soldering of surface-mount devices



3.Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(T_L to T_P)	<3°C/sec
Preheat -Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(min to max)(t_s)	150°C 200°C 60~120sec
Tsmax to T_L -Ramp-upRate	<3°C/sec
Time maintained above: -Temperature(T_L) -Time(t_L)	217°C 60~260sec
Peak Temperature(T_P)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(t_P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes