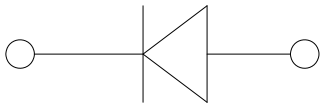
General Purpose Rectifier





Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- **Package**: DO-204AL(DO-41)

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:**Color band denotes cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	EM513	EM516	EM518
Device marking code			EM513	EM516	EM518
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	1600	1800	2000
Maximum RMS Voltage	V_{RMS}	V	1120	1260	1400
Maximum DC blocking Voltage	VDC	V	1600	1800	2000
Average Forward Current @60Hz sine wave, Resistance load, Tc	$I_{F(AV)}$	A	1.0		
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	30		
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			60		
Current squared time @1ms≤t8.3≤ms Tj=25℃，Rating of per diode	I^2t	A^2s	3.735		
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	6	7	
Storage Temperature	T_{stg}	℃	-55 ~ +150		
Junction Temperature	Tj	℃	-55 ~ +150		

■Electrical Characteristics（Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EM513	EM516	EM518
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=1.0A	1.2		
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5		
			T_j=125℃	100		

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	EM513	EM516	EM518
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	60		
	$R_{\theta J-L}$	℃/W	30		
	$R_{\theta J-C}$	℃/W	25		

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
EM513 ~ EM518	D1	Approximate 0.27	Approximate 5000	5000	50000	Tape
EM513 ~ EM518	C1	Approximate 0.27	Approximate 1000	1000	50000	Bulk

■ Characteristics (Typical)

FIG.1: Io-Tc Curve

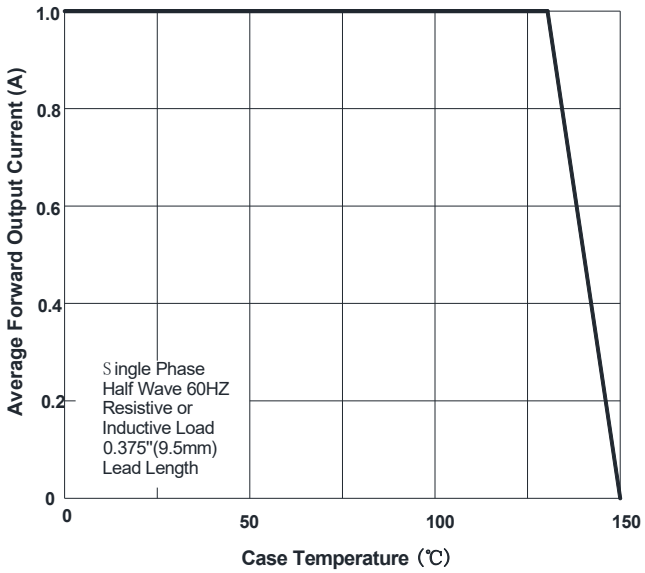


FIG.2: Forward Surge Current Capability

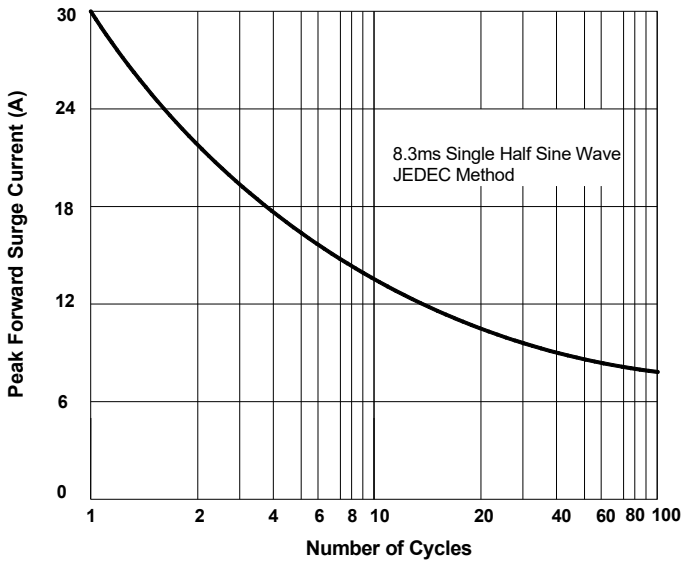


FIG.3: Forward Voltage

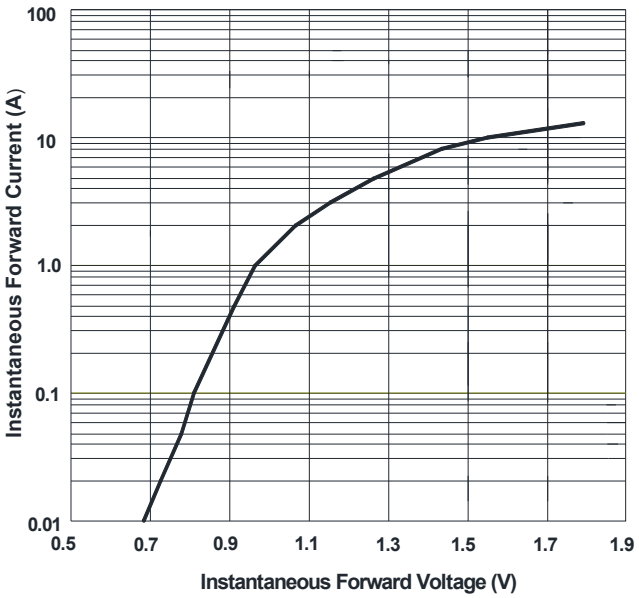
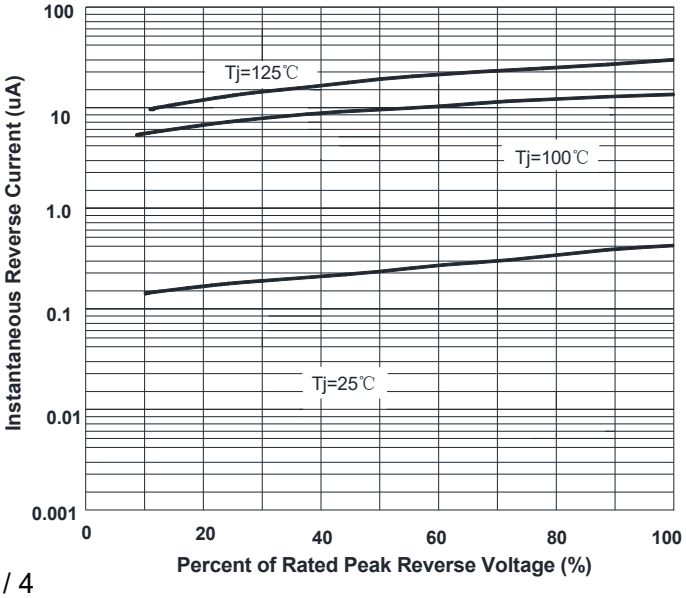
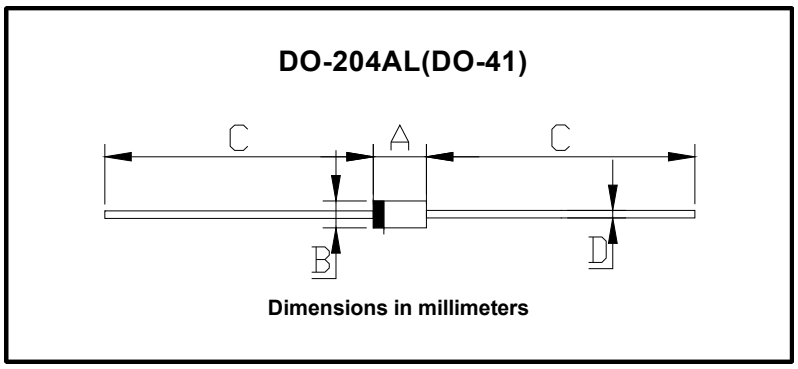


FIG.4: Typical Reverse Characteristics



■ Outline Dimensions



DO-204AL(DO-41)		
Dim	Min	Max
A	4.22	5.21
B	2.03	2.72
C	25.4	/
D	0.69	0.86

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