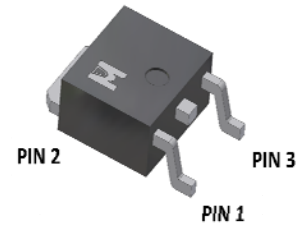
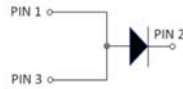


High Current Density Trench Barrier Schottky Rectifier

Product Summary:

V_{RRM}	50V
$V_F @ I_F=15A$	0.41V
$I_{F(AV)}$	15A



Trench Schottky Technology

Pb-Free Lead Plating & Halogen Free



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS	SYMBOL	LIMITS	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	15	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode	I_{FSM}	200	
Operating Junction & Storage Temperature Range	T_j, T_{stg}	-40 to 150	$^\circ\text{C}$

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNIT
Junction-to-Case	$R_{\theta JC}$		5	$^\circ\text{C} / \text{W}$
Junction-to-Ambient	$R_{\theta JA}$		75	

¹Pulse width limited by maximum junction temperature.

²Duty cycle $\leq 1\%$



ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$, Unless Otherwise Noted)

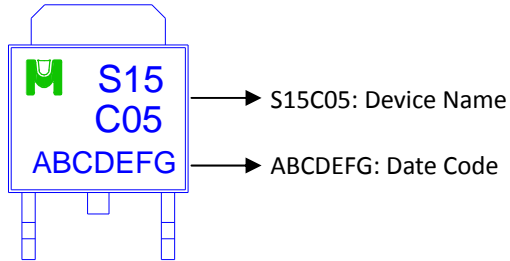
PARAMETER	SYMBOL	TEST CONDITIONS		LIMITS			UNIT	
				MIN	TYP	MAX		
Breakdown Voltage	V_{BR}	$I_R=1.0\text{mA}$		50			V	
Instantaneous Forward Voltage per Diode	V_F^1	$I_F=5\text{A}$	$T_A = 25\text{ }^\circ\text{C}$		0.38		V	
		$I_F=7.5\text{A}$			0.41			
		$I_F=15\text{A}$			0.47	0.54		
		$I_F=5\text{A}$	$T_A = 125\text{ }^\circ\text{C}$		0.26			
		$I_F=7.5\text{A}$			0.31			
		$I_F=15\text{A}$			0.41	0.50		
Reverse Current per Diode	I_R^2	$V_R = 50\text{V}$		$T_A = 25\text{ }^\circ\text{C}$		50	300	μA
				$T_A = 125\text{ }^\circ\text{C}$		50	100	mA

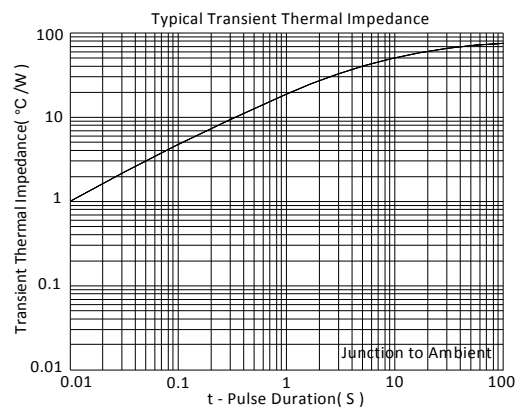
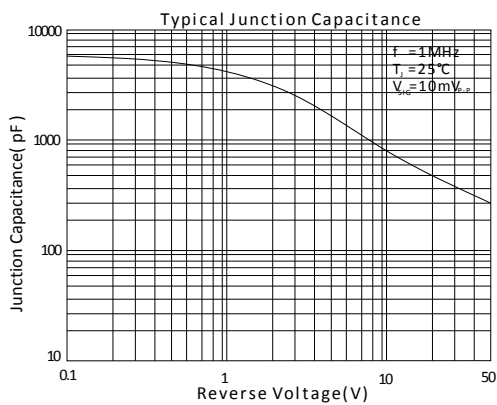
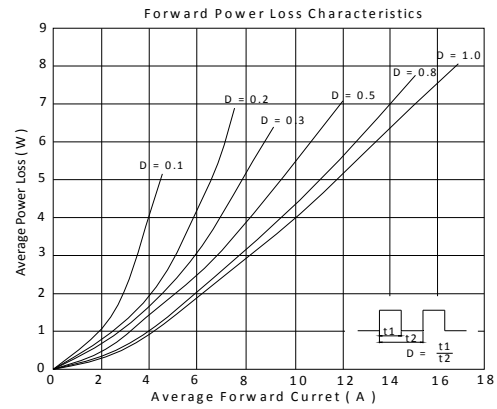
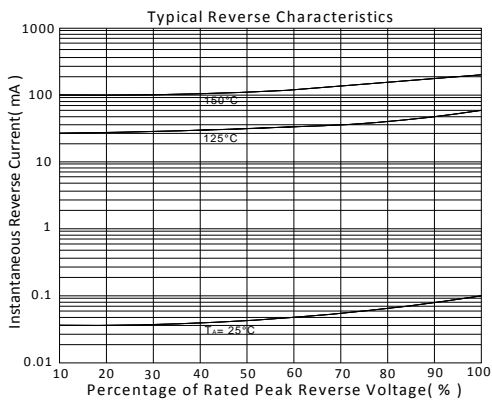
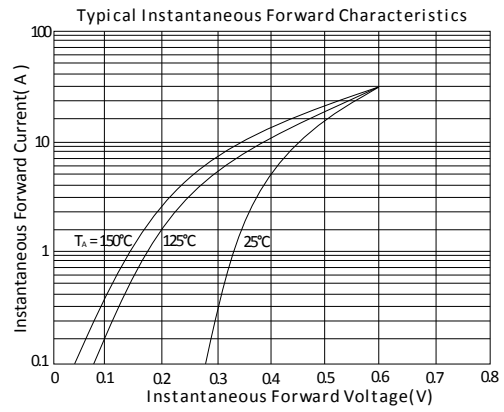
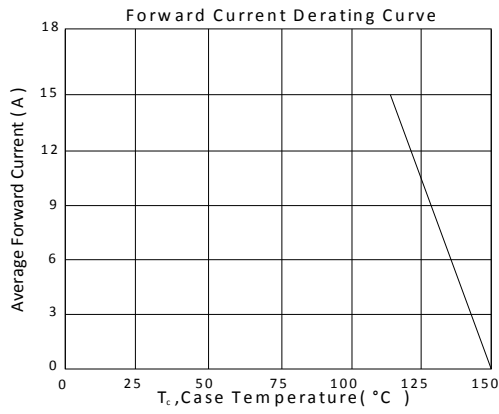
¹Pulse test : 300 μs Pulse Width, 1% Duty Cycle.

²Pulse Width $\leq 40\text{ms}$.

Ordering & Marking Information:

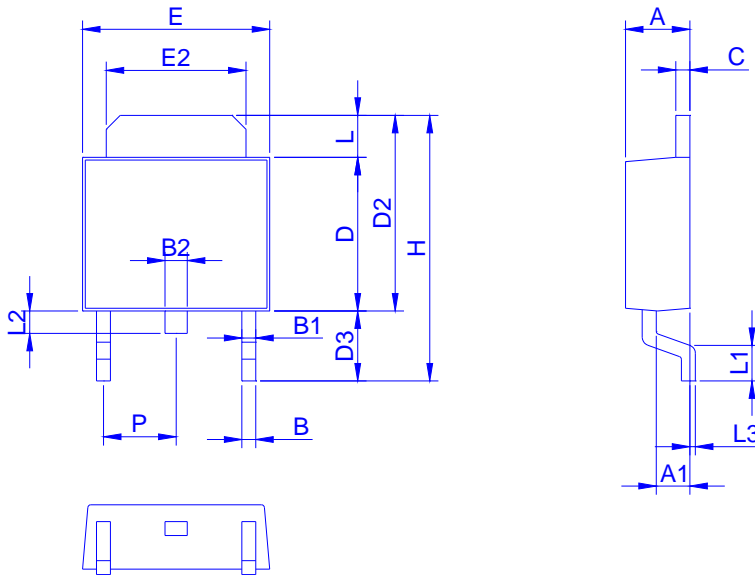
Device Name: EMS15C05A for DPAK (TO-252)







Outline Drawing



Dimension in mm

Dimension	A	A1	B	B1	B2	C	D	D2	D3	E	E2	H	L	L1	L2	L3	P
Min.	2.10	0.95	0.30	0.40	0.60	0.40	5.30	6.70	2.20	6.40	4.80	9.20	0.89	0.90	0.50	0.00	2.10
Max.	2.50	1.30	0.85	0.94	1.00	0.60	6.20	7.30	3.00	6.70	5.45	10.15	1.70	1.65	1.10	0.30	2.50

Footprint

